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ABSTRACT

An evaluation of vocational interests of students in Grades 9 and 10 in two pilot career exploration programs, one at an area vocational school and the other at a general high school, was conducted to determine whether or not the programs were: (1) developing a positive self-image as a potential worker, (2) providing a program valued by students and parents, (3) developing appropriate career interest patterns based on self-awareness and vocational awareness, and (4) developing educational and vocational planning abilities. Students in the two experimental schools plus a control school without vocational programs were administered the Ohio Vocational Interest Survey, the Tennessee Self-Concept Scale, and the Career Plans Survey in the fall of 1970 and again in the spring of 1971. As compared to students from the control school and the general high school, the students from the area vocational school were better informed about career choice and demonstrated more positive attitudes toward their abilities and chances for vocational advancement. However, changes in vocational interests were more closely related to grade level than to school programs. Parents of the vocational students were the most favorably impressed with the school's career exploration program. (AG)

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ABSTRACT

An evaluation of the Career Exploration Programs at Dayton Patterson (Vocational High School) and Toledo Woodward (general high school) was conducted to determine if these programs were effective in meeting the following objectives: (1) to help students to develop more appropriate career interest patterns based upon knowledge of themselves and the world of work; (2) to help students to develop more appropriate educational and vocational plans and goals based upon knowledge of himself and the world of work; (3) to help students to develop a more positive self-image of himself as a person and as a potential worker; and (4) to provide a program that will be considered worthwhile by parents and students in the program. Toledo Waite was used as the control school.

Students in the two experimental and one control school were given the Ohio Vocational Interest Survey (OVIS), the Tennessee Self-Concept Scale (TSC), and the Career Plans Survey (CPS) in the fall of 1970 and again in the spring of 1971. Students' tests were matched from fall to spring to provide a longitudinal sample for analysis of the data.

In general, the Career Exploration Program had very little effect upon the general areas of student interest as expressed as change in scale score on the OVIS. Change was more related to grade level than school program. Patterson students tended to be more consistent than the other groups in their expressed like or dislike of activities related to a particular occupational area from fall to spring. The expressed interests of Patterson tenth graders tended to be more stable from fall to spring than the other groups.

On the Career Plans Survey, Patterson students felt better informed to make a career choice than students at the other schools. There was no significant change from fall to spring within or between groups relating to post-high school educational and vocational plans. Patterson students were more positive in their attitude toward school and more definite in their plans to graduate from high school than students from Woodward and Waite. Patterson students had given the matter of choice more thought and felt their minds were made up as to career choice more frequently than students from Woodward and Waite. In specific instances of the CPS, Woodward students demonstrated changes significantly greater than the control group; however, there was no definitive pattern of difference in any area.

There were only two minor significant differences between groups on the Tennessee Self-Concept Scale--one in favor of an experimental and one in favor of a control school. On the Career Plans Survey, Patterson students demonstrated that they had developed a more positive attitude toward their abilities and chances for getting ahead in the occupation of their choice than did students at Woodward and Waite.

On the Parent Survey, few parents who responded felt they had "a lot" of information about the Career Exploration Program. In general, Patterson parents who responded were more favorable toward the Career Exploration Program and its effect upon their children than were the parents of Woodward students.

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CHAPTER I

INTRODUCTION, PROCEDURES AND HIGHLIGHTS

Introduction

Traditionally, a student in our school system has been called upon at several points in his school career to make educational and vocational decisions affecting the rest of his life. The student, for a variety of reasons, often has been ill-equipped to make such decisions. In addition to a general lack of maturity, the student usually has not had an adequate understanding of himself, his abilities, and his interests which is necessary in order to make decisions having such far-reaching implications for his life.

The Career Exploration Programs, planned on a pilot basis for the 1970-71 and 1971-72 school years, are an attempt in Ohio to help all students in grades nine and ten to make better career decisions. In order to accomplish this goal, students in selected schools are provided with extensive exploratory experiences in segments of the world of work. The findings presented in this report resulted from an attempt to determine to what extent the concept of Career Exploration Programs is successful in helping a student to learn more about himself and the world of work so that he can make wise career decisions.

The specific objectives of the Career Exploration Programs which were evaluated are:

1. To help the student to develop more appropriate career interest patterns based upon knowledge of himself and the world of work.

2. To help the student to develop more appropriate educational and vocational plans and goals based upon knowledge of himself and the world of work.

3. To help the student develop a positive self-image of himself as a person and as a potential worker.

4. To provide a program that will be considered worthwhile by the parents of the students in the program.

Procedures

Description of Experimental Schools

Dayton Patterson - Patterson is a four year vocational high school encompassing grades 9-12. Students attending Patterson are selected to do so and are motivated to enter some vocational course of study available at the school. Approximately 525 freshmen are selected to attend Patterson based upon their interest in vocational programs, their abilities, their previous achievement and teacher recommendation. Tenth graders participating in this study also attended Patterson as ninth graders the previous year. The program that they participated in as ninth graders was almost identical to the one offered to the ninth graders in 1970-71. The Career Exploration Program instituted in the 1970-71 school year was required of all ninth and tenth grade students for two periods each day. Ninth graders studied four different career areas for nine weeks each: tenth graders studied one area for the entire year. The program consisted primarily of students getting hands-on experience in the laboratory facilities available at the school. A limited number of field trips were taken by some students. In addition, some career materials including video-tapes of visits to local employers were available to the students.

Toledo Woodward - Woodward is a general high school in the city of Toledo. Its student body is primarily lower middle class and is an ethnic and racial mix. The Career Exploration Program at Woodward was primarily an orientation program largely made up of two weeks (one in winter and one in spring) in which the entire ninth and tenth grade student body concentrated on the study of careers. During these two weeks, speakers came to the school and some students took field trips to local industry.

Description of Control School

Toledo Waite - Waite High School is a slightly smaller school and very similar to Woodward. There was no organized program to study careers this past year at Waite. There is, however, a vocational counselor available to work with the students.

The Sample

The longitudinal sample studied consisted of all ninth and tenth grade students who took any of the tests both in the fall and spring. A student was included in the longitudinal group for each test which he completed in the fall and spring. He did not have to complete the entire battery to be included. Since the number of students in the longitudinal group could vary slightly from test to test the figures presented in Table 1 are for the Career Plans Survey only. Size of the sample for the other tests was very similar. Note that the percentage of students who took the tests in the fall who were included in the longitudinal group ranged from a low of 74 percent for Waite ninth graders

Table 1

NUMBER AND PERCENTAGE OF STUDENTS TAKING
CAREER PLANS SURVEY

Grade 9	Fall Total Number	Longitudinal Number			Percentage of Fall Total
		M	F	Total	
Woodward	648	234	273	507	77
Waite	281	81	128	209	74
Patterson	453	178	235	413	91
Grade 10					
Woodward	483	165	217	382	79
Waite	426	144	201	345	81
Patterson	523	200	276	475	91

to 91 percent for Patterson ninth and tenth graders. At every school the percentage of females participating was greater than males. The percentage of females was greatest for Waite grade 9 (61 percent) and least for Woodward grade 9 (54 percent).

Test Administration

In order to evaluate the effectiveness of the program, the following four instruments were used: Ohio Vocational Interest Survey (OVIS), Tennessee Self-Concept Scale (TSC), Career Plans Survey (CPS), and Parent Survey (PS). The last two instruments, the Career Plans Survey and the Parent Survey were developed by the investigators.

Tests were given to all students present in the ninth and tenth grades of Patterson, Waite, and Woodward during the weeks of October 19-23, 1970. In the Spring tests were given to all Patterson students during the week of May 3-7, 1971 and Waite and Woodward students during the week of May 17-21, 1971. Parent questionnaires were sent home with students at Patterson in April and at Woodward in May, 1971.

At Patterson the tests were administered by the regular classroom teachers during the periods regularly assigned to the Career Exploration Program. At Waite, the tests were administered by the counselors and some teachers to students in regular classrooms in both the fall and spring. At Woodward students were tested by the local Career Exploration Program coordinator, counselors and some teachers in class sizes of approximately 90 students in the fall. In the spring the tests were administered in the same size groups but were supervised by the Career Exploration Program coordinator assisted by a University of Akron graduate student. Substitute teachers were hired and trained to give the tests. They were assisted in proctoring the tests by some classroom teachers. In all schools the tests took four or five class periods to administer both in the fall and spring.

All answer sheets in the spring were precoded with the name and student number of all students who participated in the fall testing. This was done to assure the matching of the maximum number of students who took the tests both times.

Data Analysis

Ohio Vocational Interest Survey - A comparison was made of the changes in each of the 24 scale scores from fall to spring. Analysis of covariance was used to compare changes in each experimental school grade to the corresponding grade in the control school. In addition, each experimental school was compared with the other by grade and ninth and tenth grade performances were compared by school.

Changes in scale clarity scores on each of the 24 scales were calculated. The number of students in each group whose scale clarity score went up, down, or remained the same on each scale was computed. Chi square tests were then done comparing the number of students whose score either went up, down, or remained the same for the following groups: Control vs. Experimental by grade, $Experimental_1$ vs. $Experimental_2$ by grade, $Experimental_1$ ninth vs. tenth grade, and $Experimental_2$ ninth vs. tenth grade.

Changes in scale clarity scores for each of the longitudinal groups were determined by tallying the number of students in each group who had H, F, or I scores on the pre-test and post-test. Post-test results were used as the observed distribution and pre-test results were used as the expected distribution in calculating chi square. The assumption was made that the fall or pre-test should serve as the base line and if the program made no difference then there should be no change in the post-test or spring testing. The fall and spring scores of each longitudinal group were compared in this fashion.

Finally, three comparisons were made utilizing students' first choice expressed and/or inventoried interests. First a "t" test was calculated comparing the change in the mean inventoried rank of the first choice expressed interest comparing each longitudinal group with itself from fall to spring. Second, an analysis of covariance was done comparing the change from fall to spring in the inventoried rank of the first choice expressed interest comparing the following groups: Control vs. Experimental by grade, $Experimental_1$ vs. $Experimental_2$ by grade, $Experimental_1$ ninth vs. tenth grade, and $Experimental_2$ ninth vs. tenth grade. Third, a tally was made of the number in each longitudinal group whose first choice inventoried interest changed versus the number that remained the same for each group. Then chi square comparisons were made between each experimental school with the Control school by grade level, each experimental school with the other experimental school by grade level, and the two grade levels in each school. Fourth, the same chi square comparisons were made for changes in first choice expressed interests.

Career Plans Survey - The Career Plans Survey was a 25 item multiple choice questionnaire designed by the researchers to determine student career experiences, attitudes, and plans. Analysis of data from the Career Plans Survey was different for each of three groups of questions.

The first group, questions 1, 2, and 3, were designed simply to elicit descriptive data about the status of students at the beginning and end of the year. Students could mark as many choices as applicable for these three questions thus the percentages were calculated by dividing the number of students choosing a particular choice by the total number of students. This led to total percentage responses to the questions in excess of one hundred percent in some instances.

The second set of questions (4, 6, 7, 8, 9, 13, 15, 17) were actually rating scales and were treated as such. The mean response for each group was used as the basis of comparison for these groups. In each instance the highest rating a student could give to a question was 0, while the lowest ranged from 2 to 4. Analysis of covariance was used to compare the fall versus spring means for all three schools at each grade level. When an F significant at the .05 level or greater was found, the Newman Keuls procedure was used to determine which of the groups differed significantly from one another.

For the remaining questions (5, 10, 11, 12, 14, 16, 18, 19, 20, 21, 22, 23, 24, 25) two types of comparisons were made. First for each longitudinal group (ex.: ninth grade Patterson) a change score from fall to spring was calculated by subtracting the number of students choosing each response for

each question in the fall from the number making that response in the spring. A constant equal to the total number in the largest group to be compared was added to all change scores to be compared to remove minus numbers. Chi square comparisons of the change scores were then calculated comparing experimental and control groups by grade level. In addition, each experimental group was compared with the other by grade and the two grades in each experimental school were compared with each other. Second, using the change scores for each longitudinal group and the adding of constants as previously described, the change scores for each response to each question for the longitudinal groups were used as the observed distribution for a chi square test. Zero plus the constant were used as the expected frequency. The assumption was again made that no change would be the expected outcome if there were in fact no change as a result of the program. Significant change in these questions for each longitudinal group was determined in this fashion.

Tennessee Self-Concept Scale - Analysis of covariance comparing change in scores from fall to spring for students by grade for all three schools was calculated for the following nine scales: Self-Esteem (Total P), Identity (Row 1), Self-Satisfaction (Row 2) Behavior (Row 3). Physical Self (Column A). Moral-Ethical Self (Column B), Personal Self (Column C), Family Self (Column D), Social Self (Column E). If an F significant at the .05 level or greater was found between the three groups on any scale, a Newman-Keuls test was done to determine which means were significantly different from the others.

Parent Survey - The Parent Survey was a brief rating scale designed by the researchers to determine parent attitudes toward the Career Exploration Program. Questionnaires were sent to the parents of all of the participants in the two experimental schools. Results were tallied and reported only as percentages. No statistical comparisons were made between schools.

Highlights

The investigators, in order to provide the reader with an overview of the findings, have deviated from the more traditional format for presenting the summary of the study. Such a change was deemed desirable because of the wealth of data presented in the report. It is hoped that by first reading a very cursory presentation of the more important findings in highlight form, that the reader will be better able to understand the total report. The reader is cautioned against making any generalizations only on the basis of the data presented in Chapter I. A careful reading of the entire report is essential if one is to comprehend the essence of the findings presented in this chapter.

In order to determine the effectiveness of the program in meeting the objectives, hypotheses related to the objectives were tested. The highlights of the findings for a particular objective and its related hypotheses follow the statement of the same. The instrument used to treat the hypothesis appears in parenthesis after each hypothesis.

Objective 1. To help the student develop more appropriate career interest patterns based upon knowledge of himself and the world of work.

Hypotheses:

1A. That the nature of the students' interests will change significantly as a result of participation in the Career Exploration Program. (OVIS)

1B. That students will be more consistent in their expressed like or dislike for all activities related to specific occupational clusters as a result of their participation in the Career Exploration Program. (OVIS)

1C. That there will be greater change in students' expressed interests as a result of their participation in the Career Exploration Program. (OVIS)

1D. That there will be greater change in students' inventoried interests as a result of their participation in the Career Exploration Program. (OVIS)

1E. That there will be greater correspondence between first choice expressed interest and first ranked inventoried interest as a result of participation in the Career Exploration Program. (OVIS)

Highlights of Findings Related to Objective 1

(1) There were few significant differences in change in scale score from fall to spring when the experimental and control schools were compared. When experimental schools were compared with each other by grade again there were few changes.

(2) There was much greater change in scale score between grade levels within a school than between the same grade level in different schools.

(3) Grade level within participating school did not have any impact or significant change in scale clarity score.

(4) Patterson ninth grade had greater tendency for their scale clarity scores to remain the same than did Waite and Woodward ninth graders. This same trend was also apparent, but to a lesser degree, in the tenth grade comparisons.

(5) The number of students in both grades 9 and 10 at Patterson who had "I" (Inconsistent) scale clarity scores in the spring was significantly greater than for the other groups.

(6) Patterson tenth grade students were significantly more consistent in their expressed interests from fall to spring than Patterson ninth graders and Waite tenth graders.

(7) Patterson tenth graders were significantly more consistent in their inventoried interests from fall to spring than were Waite tenth graders, Woodward tenth graders, and Patterson ninth graders. The Career Exploration Program, thus, had less impact upon changing Patterson tenth graders' areas of interest than the above mentioned groups.

(8) Patterson tenth grade students inventoried rank of their first choice expressed interest changed significantly more in the desired direction than did those of Patterson ninth grade students and Woodward tenth grade students.

Objective 2. To help the student to develop more appropriate educational and vocational plans and goals based upon knowledge of himself and the world of work.

Hypotheses:

2A. That students' educational and vocational plans and goals will change significantly as a result of the Career Exploration Program. (CPS)

2B. That a greater percentage of students will have definite education and vocational plans and goals as a result of the Career Exploration Program. (CPS)

Highlights of Findings Related to Objective 2

(1) "Field trips to observe people at work" and "talks at school by people who know about or work at the occupation" were most often reported by students from all three schools as ways that they had learned about occupations prior to the 1970-71 school year. (Question 1)

(2) In general, a higher percentage of students from the experimental schools than the control school indicated on the spring survey that "field trips to observe people at work," "information from a special class on careers," and "talks at school by people who know about or work at the occupation" were ways that they had learned at school about occupations during the 1970-71 school year. A higher percentage of Patterson students than Woodward or Waite students indicated in the spring the opportunity of "trying some of the training required for the occupation" and "getting information about occupations in their regular classes" as ways that they had learned at school about occupations. (Question 2)

(3) "Field trips to observe people at work" were selected as being the most helpful source at school for learning about occupations by approximately one-third of the ninth and tenth grade students at Woodward and ninth grade students at Patterson at the time of spring testing. (Question 10)

(4) Parents and friends were most often named by students from all three schools as being the people with whom they had discussed the occupations that were of most interest to them. When the student was asked to indicate the most helpful person to him in learning about occupations, parents were still ranked high, but friends and relatives tended to be ranked lower by all groups. Only Patterson students ranked teachers as being more helpful than parents in helping them learn about occupations. (Questions 3 and 18)

(5) When comparing changes from fall to spring within each of the six groups, all the groups with the exception of Waite tenth grade students reported increased job activity outside the home in the spring. Patterson students reported less job activity outside the home at the time of spring testing than did the students from Woodward and Waite. (Question 24)

(6) Forty percent or less of the Woodward and Waite students reported in the fall and spring that they had enough information about the jobs that interested them to choose the occupation that they would like to enter. The only group in which a majority of the students stated both in the fall and spring that they felt that they had enough information about the jobs that interested them to choose an occupation was the tenth grade group from Patterson. The Patterson ninth and tenth grade groups were significantly higher (toward having enough information about jobs to choose one) than were the ninth and tenth grade groups from Woodward or Waite. The Woodward tenth grade group was significantly higher (toward having enough information about jobs to choose one) than the Waite tenth grade group. (Question 17)

(7) Three of the six groups changed significantly from fall to spring in their selection of a high school course of study based on their interests and abilities. The most apparent change for all three, Woodward ninth grade and Patterson ninth and tenth grades was in the direction of a greater percentage of students selecting a "vocational or technical" course of study. There was also a significant, but random change, from fall to spring responses of the Waite tenth grade students. (Question 23)

(8) All the experimental groups changed significantly from fall to spring in reporting which course of study their parents would like them to take in grades 11 and 12. The change of responses for the Woodward students were fairly evenly distributed over the six possible choices, while the Patterson students tended to place greater emphasis on "vocational and technical" as the course of study favored by their parents. (Question 21)

(9) The ninth grade group from Waite was the only group that did not change significantly from fall to spring when asked what course of study they would take in grades 11 and 12 if they could take any that they wanted. The change in responses for Woodward and Waite tenth grade students tended to be fairly evenly distributed among the six choices, while the change in responses for Woodward ninth grade and Patterson ninth and tenth grade students tended to emphasize "vocational and technical" as the preferred course of study in grades 11 and 12. (Question 11)

(10) The ninth grade group from Waite was the only group that did not change significantly from fall to spring when asked which course of study they planned to take in grades 11 and 12. The change in response for Woodward ninth grade students tended to be fairly evenly distributed among the six possible choices. The most apparent change for the Woodward and Waite tenth grade students was in the increased percentage selecting a "general" curriculum. Finally, there was a noticeable increase in the percentage of Patterson ninth and tenth grade students selecting "vocational and technical" in the spring when compared to the fall. (Question 19)

(11) Analysis of the data pertaining to the four items related to post-high school educational and vocational plans and goals in terms of the student's interests and abilities, his parents' wishes, his own desires, and his actual plans, revealed no significant changes in responses within or between groups from fall to spring. The one choice receiving the highest percentage of response from all groups in the fall and spring was "go to a college or university (4 years)." (Questions 12, 16, 20, 22)

(12) Although there were no significant differences within or between any of the groups in their responses to how much schooling they thought most young people need these days to get along well in the world, some interesting trends were apparent. Between 26 percent and 38 percent of the groups from Woodward and Waite stated in the fall and spring that a high school diploma was enough school to get along well in the world. The choice receiving the highest percentage of response from the Patterson groups was "high school diploma including vocational and technical education". Between 24 percent and 29 percent of the Patterson students made this choice. In the spring, a total of 57 percent of the Patterson ninth grade students and 58 percent of the Patterson tenth grade students stated that additional training beyond high school was necessary, while between 41 percent and 53 percent of the groups from Woodward and Waite responded in a similar manner. (Question 14)

(13) Approximately one-half to three-fourths of the students stated in the spring that they like school a lot or pretty well. The Patterson ninth grade group was significantly higher (toward liking school a lot) than the Waite ninth grade group. Patterson tenth grade students were significantly higher (toward liking school a lot) than the tenth grade groups from Woodward or Waite. Woodward tenth grade students were significantly higher (toward liking school a lot) than Waite tenth grade students. All groups, however, tended to be less positive toward school in the spring than in the fall.

(14) The percentage of students stating in the fall that they definitely planned to graduate from high school ranged from 85 percent of the Woodward ninth grade group to 99 percent of the Patterson tenth grade group. The Patterson ninth grade group was significantly higher (in the direction of definitely planning to graduate) than the Woodward ninth grade group. Patterson tenth grade students were significantly higher (in the direction of definitely planning to graduate) than Woodward or Waite tenth grade students. The percentage of students reporting that they definitely planned to graduate from high school decreased in the spring when compared with the fall. (Question 7)

(15) The most popular choice of students when asked what one main thing makes a job a "good job" was that the job has a good future. The percentage of students selecting this choice in the fall ranged from 25 percent of the Woodward ninth and tenth grade students to 37 percent of the Patterson ninth grade students. The percentage of response for this choice remained approximately the same for all groups with the exception of Woodward tenth grade students and Patterson tenth grade students whose responses for this choice increased to 37 percent and 42 percent respectively. The change of responses within the two groups was significant at the .01 level. (Question 5)

(16) Approximately 25 to 30 percent more of the Patterson students than the Woodward and Waite students reported at the time of the spring testing that they had given matter of their occupational choice a great deal of thought. (Question 4) The most apparent change within groups from fall to spring occurred in the response from the Patterson ninth grade group. The percentage of students from this group reporting that they had given the matter a great deal of thought increased from 62 percent in the fall to 79 percent in the spring. Patterson ninth and tenth grade groups were significantly higher (toward having given the matter of an occupational choice more thought) than ninth and tenth grade students from Woodward or Waite.

(17) A significantly higher percentage of Patterson students than Woodward and Waite students reported that their mind was made up or that they thought their mind was made up regarding their choice of an occupation. Analysis of the adjusted means indicated that the Patterson ninth and tenth grade students were significantly higher (toward being sure that their minds were made up regarding an occupational choice) than the ninth and tenth grade students from Woodward or Waite. (Question 6)

Objective 3. To help the student develop a positive self-image of himself as a person and as a potential worker.

Hypotheses:

3A. That students will have a more positive global self-image as a result of the Career Exploration Program. (TSC)

3B. That students will have a more positive self-image of themselves as potential workers as a result of the Career Exploration Program. (CPS)

Highlights of Findings Related to Objective 3

(1) There were only two significant differences between groups on the Tennessee Self-Concept Scale. Patterson tenth grade students' "identity" scores changed significantly more in the desired direction than did Woodward tenth grade students. In addition, Waite tenth grade students' scores changed significantly more in the desired direction than Patterson tenth grade students. This evidence indicates that the program had little if any impact upon the "global" self concept of students in the experimental schools.

(2) In general, Patterson students developed a significantly more positive attitude toward their abilities and chances for getting ahead in the occupation of their choice than did students at Waite and Woodward. The response on the part of Patterson students indicates the Patterson program's success in improving students' "vocational" self-concept.

Objective 4. To provide a program that will be considered worthwhile by parents of students in the Career Exploration Program.

Hypotheses:

4A. That attitudes toward the program expressed by parents will be generally favorable. (PS)

Highlights of Findings Related to Objective 4.

(1) Fewer than 10 percent of the parents responding from Patterson and Woodward believed that they knew "a lot" about the Career Exploration Program in their child's school. Most of these parents indicated that their source of information about the CEP was their child.

(2) The opportunity for their child to participate in the CEP was evaluated as an "excellent" or a "good" experience by 91 percent of the Patterson parents and 82 percent of the Woodward parents.

(3) 82 percent of the Patterson parents and 74 percent of the Woodward parents "strongly agreed" or "agreed" that "this year in school my child has learned about what jobs are available to him".

(4) 78 percent of the Patterson parents and 61 percent of the Woodward parents "strongly disagreed" or "disagreed" that "this year in school my child has not learned about what training is required for different jobs".

(5) 58 percent of the Patterson parents and 63 percent of the Woodward parents "strongly agreed" or "agreed" that "this year in school my child has learned what different jobs pay".

(6) 89 percent of the Patterson parents and 79 percent of the Woodward parents "strongly disagreed" or "disagreed" that "this year in school my child has learned less about jobs than in past years".

(7) 72 percent of the Patterson parents and 43 percent of the Woodward parents "strongly agreed" or "agreed" that "my child likes school better this year because he has had an opportunity to learn about jobs".

(8) 73 percent of the Patterson parents and 64 percent of the Woodward parents "strongly disagreed" or "disagreed" that "my child has discussed with me less this year than in past years what he wants to do after completing his high school education".

(9) 86 percent of the Patterson parents and 60 percent of the Woodward parents "strongly agreed" or "agreed" that "because of studying about jobs in school this year, my child has a better idea of what jobs he would like to do after completing his high school education".

(10) 79 percent of the Patterson parents and 47 percent of the Woodward parents "strongly agreed" or "agreed" that "because of studying about jobs in school this year, my child has a better idea of what jobs he can do well."

Organization of the Report

The reader is once again cautioned against making any generalizations on the basis of only the findings presented in the preceding highlights. The following chapters should be studied for a more in-depth understanding of the data generated by the various instruments.

Chapter II presents a detailed analysis of the data collected on the Ohio Vocational Interest Survey (OVIS) for Objective 1. Chapter III presents a wealth of data collected by means of the Career Plans Survey (CPS) for the purpose of determining whether or not Objective 2 was met by the Career Exploration Programs studied. Chapter IV presents the data collected by means of the Tennessee Self-Concept Scale (TSC) and the Career Plans

Survey (CPS) to determine if Objective 3 was attained. Chapter V presents the data collected by means of the Parent Survey to determine if Objective 4 was achieved. Finally, Chapter VI of the report presents the conclusions drawn by the investigators on the basis of the data presented in Chapters I through V. In addition, recommendations for further study and for improvement of future Career Exploration Programs are presented.

CHAPTER II

INTERESTS

Objective 1: To help the student develop more appropriate career interest patterns based upon knowledge of himself and the world of work.

Instrumentation

The Ohio Vocational Interest Survey (OVIS) was given to all students in the fall and spring. The OVIS consists of 280 items which describe activities related to specific jobs. The items are distributed over 24 scales (several of the items are differentiated by sex, thus the additional items). Students are asked to respond to each item on a 5 point scale from "strongly like" to "strongly dislike". Students may thus get a scale score from 11 to 55 on each scale. In addition, students receive a scale clarity score on each scale of either "H" (highly consistent), "F" (fairly consistent), or "I" (inconsistent) to indicate how consistent they were in marking all items on a particular scale. For a more thorough description of the 24 scales, see Appendix.

Hypothesis 1A: That the nature of the students' interests will change significantly as a result of participation in the Career Exploration Program.

Findings

Table 2 illustrates areas in which an analysis of covariance revealed significant differences in the changes in OVIS Scale Scores between groups from fall to spring. Three findings stand out in Table 2.

First, there were extremely few (1 to 3) significant differences in change in scale scores between any grade 9 control versus experimental schools. There were only slightly more (5 to 7) significant differences in change between control and experimental schools at grade 10. Most of these changes at grade 10 indicated that there was greater change in the control schools than there was in the experimental schools.

Second, there were also few differences (6 in grade 9 and 7 in grade 10) in change when the two experimental schools were compared. At the ninth grade level the mean score of Woodward students changed significantly more than Patterson students in only three instances; and the reverse was also

Table 2

A COMPARISON OF CHANGES IN OVIS SCALE SCORES FROM FALL TO SPRING

School	1 Manual Work	2 Machine Work	3 Personal Service	4 Care People-Anim.	5 Clerical Work	6 Inspect-Testing	7 Crafts	8 Customer Service	9 Nursing	10 Skilled Per. Serv.	11 Training	12 Literary	13 Numerical	14 Appraisal	15 Agriculture	16 Applied Tech.	17 Promotion-Comm.	18 Management	19 Artistic	20 Sales Represent.	21 Music	22 Entertainment	23 Teach-Coun.-Soc. W.	24 Medical
Wt 9 vs. Patt 9			X[a]		X[a]	X[b]																		
Wood 9 vs. Wt 9													X[a]											
Patt 10 vs. Wt 10	X[a]		X[a]	X[a]		X[a]			X[b]									X[a]					X[a]	
Wood 10 vs. Wt 10	X[b]		X[b]		X[a]							X[b]			X[b]									
Patt 9 vs. Wood 9	X[b]		X[a]		X[b]								X[a]										X[a]	X[b]

(continued)

Table 2
(continued)

A COMPARISON OF CHANGES IN OVIS SCALE SCORES FROM FALL TO SPRING

School	1 Manual Work	2 Machine Work	3 Personal Service	4 Care People-Anim.	5 Clerical Work	6 Inspect-Testing	7 Crafts	8 Customer Service	9 Nursing	10 Skilled Per. Serv.	11 Training	12 Literary	13 Numerical	14 Appraisal	15 Agriculture	16 Applied Tech.	17 Promotion-Comm.	18 Management	19 Artistic	20 Sales Represent.	21 Music	22 Entertainment	23 Teach-Coun.-Soc. W.	24 Medical
Patt 10 vs. Wood 10	X[a]					X[a]				X[a]	X[a]						X[a]	X[a]					X[a]	
Patt 9 vs. Patt 10	X[a]	X[a]	X[a]	X[a]		X[a]	X[a]		X[a]				X[a]	X[a]	X[a]	X[b]				X[a]	X[a]			X[a]
Wood 9 vs. Wood 10	X[a]	X[b]	X[a]		X[a]	X[a]	X[a]		X[a]	X[a]	X[a]		X[b]	X[a]							X[a]			

Note: "X's" indicate scales on which there was a difference significant at the .05 level or greater.

a = .01 level of confidence

b = .05 level of confidence

true in three instances. At the tenth grade level Patterson students demonstrated significantly greater change on all but two scales.

Third, the greatest number of significant changes came in instances when the two grade levels within the experimental school were compared with each other. When Patterson ninth grade was compared with Patterson tenth grade, Patterson tenth grade had significantly more change than Patterson ninth grade on all 14 of the scales on which there was significant change. Woodward grade 9 changed significantly more than Woodward grade 10 on all 12 of the scales in which there was a significant difference.

Discussion

It appears that a career exploration program has relatively little impact upon student interests when change in scale score is used as the criterion. The number of scale scores in which there was a significant change was very limited when experimental and control schools were compared. Most of the changes which did occur were in favor of the control school. There were also few significant differences in change when the two experimental schools were compared with each other by grade level.

Grade level and probably age seem to be a much more important factor in stability of interests than school program. This coincides with research on interests which shows that interests tend to stabilize with increasing age. It appears that interests tend to become stable for most students in the tenth grade. A comparison of change by grade levels in the control school should be done to verify this.

Hypothesis 1B: That students will be more consistent in their expressed like and dislike for all activities related to specific occupational clusters as a result of their participation in the Career Exploration Program.

Findings

Change in the scale clarity score in the OVIS was used to test this hypothesis. Students received one of three scale clarity scores (H=consistent, F=fairly consistent, I=inconsistent) to indicate how consistent they were in their like or dislike of all activities associated with each scale. Groups were compared in two ways on their scale clarity scores. First a chi square test was run to determine if a significantly greater number of students' scale clarity scores changed in one group than another. Second, the number of students in each longitudinal group having each of "H", "F", or "I" scale clarity scores in the fall were compared with the number of students in these same groups having each scale clarity score in the spring.

To highlight the findings, the greatest number of significant changes (up, same, down) occurred when Patterson ninth grade and Waite ninth grade (15 changes), and when Patterson grade 9 and Woodward grade 9 (16 changes) were compared by a chi square test (Table 3). In both cases the students from Patterson had a tendency for their scale clarity scores to remain the same from pre to post test while those of the other schools tended to

Table 3

A COMPARISON OF NUMBER OF STUDENTS WHOSE OVIS SCALE CLARITY SCORES WENT UP, STAYED THE SAME, OR WENT DOWN FROM FALL TO SPRING

School	1 Manual Work	2 Machine Work	3 Personal Service	4 Care People-Anim.	5 Clerical Work	6 Inspect-Testing	7 Crafts	8 Customer Service	9 Nursing	10 Skilled Per. Serv.	11 Training	12 Literary	13 Numerical	14 Appraisal	15 Agriculture	16 Applied Tech.	17 Promotion-Comm.	18 Management	19 Artistic	20 Sales Represent.	21 Music	22 Entertainment	23 Teach-Coun.-Soc. W.	24 Medical
Patt 9 vs. Wt 9	X[a]	X[b]	X[a]	X[a]		X[b]		X[a]	X[a]		X[a]	X[a]		X[b]			X[b]		X[a]		X[b]		X[b]	X[b]
Patt 10 vs. Wt 10	X[b]	X[b]	X[a]	X[b]	X[b]	X[a]		X[a]	X[a]						X[a]									X[b]
Wood 9 vs. Wt 9				X[a]											X[b]									X[b]
Wood 10 vs. Wt 10															X[b]									
Patt 9 vs. Wood 9	X[a]		X[a]	X[a]	X[b]	X[a]		X[a]	X[a]	X[b]	X[a]	X[a]		X[a]	X[a]		X[b]	X[b]					X[b]	X[a]

(continued)

Table 3
(continued)

A COMPARISON OF NUMBER OF STUDENTS WHOSE OVIS SCALE CLARITY SCORES WENT UP, STAYED THE SAME, OR WENT DOWN FROM FALL TO SPRING

School	1 Manual Work	2 Machine Work	3 Personal Service	4 Care People-Anim.	5 Clerical Work	6 Inspect-Testing	7 Crafts	8 Customer Service	9 Nursing	10 Skilled Per. Serv.	11 Training	12 Literary	13 Numerical	14 Appraisal	15 Agriculture	16 Applied Tech.	17 Promotion-Comm.	18 Management	19 Artistic	20 Sales Represent.	21 Music	22 Entertainment	23 Teach-Coun.-Soc. W.	24 Medical
Patt 10 vs. Wood 10	X[a]	X[a]	X[a]			X[a]	X[b]	X[b]	X[a]															X[a]
Patt 9 vs. Patt 10						X[a]												X[b]						
Wood 9 vs. Wood 10													X[b]		X[b]									X[b]

Note: "X's" indicate scales on which there was a difference significant at the .05 level or greater.

a = .01 level of confidence

b = .05 level of confidence

fluctuate more (Appendix A). This trend was also noticeable to a lesser degree in the comparison of Patterson tenth grade students to those in the other schools. In contrast to the scale scores, change in scale clarity scores did not seem to be effected by grade level.

When the number of students in each longitudinal group earning each scale clarity score ("H", "F", "I") were compared from fall to spring by a chi square test the distribution of scores of Dayton Patterson students tended to change with slightly more frequency than the distribution of student scores in the other groups (Table 4). Tenth grade students at Patterson demonstrated significant shifts in 11 scales; ninth grade Patterson students had significant change in 7 scales. Students in both grades 9 and 10 at Waite had significant change on 6 and 7 scales respectively. It is interesting to note that the only discernable pattern of change in any group is that, in almost every instance, on those scales where there was a significant difference, Patterson students tended to get more "I" (inconsistent) scale clarity scores in the spring than the other groups (Appendix B).

Discussion

Student scale clarity scores of Patterson tended to remain the same from fall to spring to greater degree than students from the other schools. However, when Patterson students' scores did change they tended to change toward becoming more inconsistent.

Let us examine each of these findings in more detail. First, it appears that students attending Patterson had a better understanding of the activities associated with particular occupations at the beginning of the year and, thus, tended to change little in their consistency of preference for all activities related to a particular career area during the year. Another possibility may be that the Patterson program only provided students with limited experiences, i.e. only ones in areas with which they were already somewhat familiar and, thus, students did not get new information upon which to develop opinions about activities related to new occupational areas. A third and, probably the best explanation, is that Patterson students seem to be more mature, informed, and goal directed as evidenced by their applying and being admitted to a rather select vocational high school. These students may, by the nature of the selection process, just be less prone to change. This would explain the seeming inconsistency between this finding and the one that follows.

The second finding, that the scale clarity scores of students at Dayton Patterson tended to change toward becoming more inconsistent when they did change, seems to indicate that the hands-on experience at Patterson has helped students to more clearly differentiate between those activities which they consider desirable from those which are undesirable within a particular occupation. By being inconsistent, students are saying that there are some activities associated with an occupation which they like better than others. A hands-on experience designed to help students test themselves against job demands should accomplish such a goal.

Hypothesis 1C: That there will be a significant change in students' first choice expressed interest as a result of their participation in the Career Exploration Program.

Table 4

A COMPARISON OF THE NUMBER OF STUDENTS IN EACH LONGITUDINAL GROUP
WHO HAD SCALE CLARITY SCORES OF H, F, OR I
IN THE FALL VERSUS SPRING

School	1 Manual Work	2 Machine Work	3 Personal Service	4 Care People-Anim.	5 Clerical Work	6 Inspect-Testing	7 Crafts	8 Customer Service	9 Nursing	10 Skilled Per. Serv.	11 Training	12 Literary	13 Numerical	14 Appraisal	15 Agriculture	16 Applied Tech.	17 Promotion-Comm.	18 Management	19 Artistic	20 Sales Represent.	21 Music	22 Entertainment	23 Teach-Coun.-Soc. W.	24 Medical
Wood 9							X b		Xb						Xa	Xb								Xb
Wood 10				Xb		Xa				Xa		Xa												
Patt 9				Xa		Xa	X b			Xb	Xa			Xb									Xb	
Patt 10			Xb						Xb			Xb	Xb	Xa	Xb		Xa	Xb	Xa	Xa				Xb
Wt 9				Xa			Xb		Xb						Xb					Xb				Xa
Wt 10				Xa	Xb			Xb	Xb		Xa				Xa		Xb							

Note: "X's" indicate scales on which there was a difference significant at the .05 level or greater.

a = .01 level of confidence

b = .05 level of confidence

Findings

Only two groups showed significant shifts in their expressed interests (students were asked which of the 24 occupational areas they would most like to do) when compared with the other groups (Table 5). When tenth grade students at Patterson and Waite were compared, Patterson tenth graders tended to change less in their first choice than those at Waite. Even at Patterson, almost 45 percent of the students selected a different first choice in the spring than in the fall (Appendix C).

The second significant difference was between ninth and tenth grade students at Patterson. In this instance only 42 percent of the ninth graders' choices remained the same compared with 56 percent of the tenth graders. Not more than 56 percent of any group nor less than 42 percent of any group held the same expressed choice in the spring as in the fall.

Discussion

The tenth grade students at Patterson demonstrated a greater degree of consistency in occupational choice than two other groups. Considering that these students had spent two years at a vocational high school it is somewhat surprising that they did not significantly surpass all five other groups in their occupational certainty. On the other hand, it is interesting to note the greater inconsistency in the Patterson ninth graders compared with those in the tenth grade. One would expect that once the program is in full operation, tenth graders in a Career Exploration Program should tend to be more consistent in their expressed choice than tenth graders not in the program and more consistent than all ninth graders.

An explanation for the Dayton finding may be that the ninth graders at Patterson were exposed to four occupational areas during the year and were probably influenced to change their expressed choices by this exposure in many instances. On the other hand, the Patterson tenth graders had been forced to make a commitment to a single occupational area at the end of the ninth grade and only studied in that single area as a tenth grader. Since the tenth graders had made a commitment and had been given little new information about other careers since then, it is easy to see why they reacted as they did.

Hypothesis 1D: That there will be a greater change in students' inventoried interests as a result of their participation in the Career Exploration Program.

Findings

The change in the ranking of the highest ranking inventoried interest (one with highest scale score on the OVIS) area was also compared from fall to spring (Table 6). Again, the Patterson tenth graders demonstrated a greater propensity to have the same inventoried interest from fall to spring than most other groups. A significantly greater percentage of Patterson tenth graders (44 percent) inventoried interest remained the same than did Waite tenth graders (34 percent), Woodward tenth graders (35 percent), and

Table 5

CHANGE IN FIRST CHOICE EXPRESSED INTEREST

School	PERCENTAGE Same	Changed	Chi Square
Patt 10	.558	.447	5.34 b
vs.			
Wt 10	.471	.528	
Patt 9	.418	.581	16.97 a
vs.			
Patt 10	.558	.441	

a = significant at .01 level.

b = significant at .05 level.

Table 6

CHANGE IN FIRST CHOICE INVENTORIED INTEREST

School	PERCENTAGE Same	Changed	Chi Square
Patt 10 vs. Wt 10	.437 .335	.561 .664	8.00 a
Patt 10 vs. Wood 10	.437 .353	.561 .646	5.68 b
Patt 9 vs. Patt 10	.325 .437	.674 .561	11.72 a

a = significant at .01 level.

b = significant at .05 level.

Patterson ninth graders (33 percent). The percentage of each group whose inventoried interest remained the same from fall to spring ranged from a low of 31 percent to a high of 44 percent (Appendix D).

Discussion

As in the previous hypothesis, it appears the students in the tenth grade at Patterson had a clearer idea of what they wanted to do and of the activities commensurate with that occupational area at the beginning of the year than most groups of students in the other schools. Again, this may be the result both of the selection process which these students went through prior to being admitted to Patterson and the program that they participated in at Patterson as ninth graders, since they had participated in a program similar to the Career Exploration Program as ninth graders. It appears that the Career Exploration Program had least impact upon Patterson tenth graders in changing their field of interest, but it did have an impact upon them in their ability to differentiate between desirable and undesirable activities associated with several career areas. It is also possible that many of the Patterson students who were not sure about their career choice dropped out of Patterson between the ninth and tenth grades. About 10 percent of the freshmen do not return for their sophomore year.

Hypothesis 1E: That there will be greater correspondence between first choice expressed interest and first ranked inventoried interest as a result of participation in the Career Exploration Program.

Findings

A "t test" was done to compare the average inventoried rank of the first choice expressed interest for each longitudinal group in the fall versus the spring. There was no significant difference in the rank from fall to spring for any group.

In addition to the "t" test, an analysis of covariance was done to compare changes from fall to spring in inventoried rank of first choice expressed interest(Appendix E). Two changes were significant (Table 7). Patterson tenth grade students inventoried rank of their first choice expressed interest changed significantly more in the desired direction during the program than did those of Patterson ninth grade students. Patterson tenth grade students also changed significantly more in the desired direction than students in Woodward tenth grade.

Discussion

Originally, it was thought that, as students became more aware of the activities associated with a particular occupational area, there would be a greater correspondence between what the student said he would like to do (expressed interests) and his expressing a liking for the activities associated with that occupational area (inventoried interests). This did happen to a greater extent with Patterson tenth grade than with Patterson ninth grade or Woodward tenth grade. If the Career Exploration Program

Table 7

INVENTORIED RANK OF FIRST CHOICE EXPRESSED INTEREST

School	MEANS Fall	Spring	Adjusted	F
Patt 9	5.94	6.56	6.55	
vs.				7.128 a
Patt 10	5.93	5.53	5.53	
Patt 10	5.93	5.53	5.59	
vs.				7.447 a
Wood 10	6.33	6.79	6.71	

a = significant at the .01 level.

were responsible for this change, one would have expected both groups of Patterson students to have surpassed the control groups in this area. This did not happen, however.

CHAPTER III

EDUCATIONAL AND VOCATIONAL PLANS AND GOALS

Objective 2: To help the student to develop more appropriate educational and vocational plans and goals based upon knowledge of himself and the world of work.

In order to determine whether or not Objective 2 was attained, two hypotheses relating to the objective were written and tested by means of the data collected with the Career Plans Survey (CPS) which was developed by the investigators specifically for the evaluation of the Career Exploration Programs. The CPS was designed to collect process and product data from the students enrolled in the experimental and control schools. The process data concerned sources and adequacy of the career information and were not directly related to the hypotheses. The product data were collected in the areas of vocational and educational plans, attitude toward work and school, work experience and self concept. The data pertaining to all of the above areas except self concept are presented in the following sections.

Sources and Adequacy of Career Information Available to Students- Selected items in the Career Plans Survey were designed to solicit student responses related to the source and adequacy of career information available to them. These items, although not directly related to the two stated hypotheses, provide an excellent opportunity to learn about sources of career information as viewed by students.

Findings

Questions 1 and 2 of the CPS asked the students to indicate the ways in which they had learned at school about occupations prior to the 1970-71 school year and ways in which they learned at school about occupations during the 1970-71 school year.

Question 1 stated, "Indicate all the ways in which you have learned at school about occupations before this (1970-71) school year." Analysis of the data from the fall, 1970 survey for Question 1 reported in Table 8 suggests that "field trips to observe people at work" and "talks at school by people who know about or work at the occupation" were most often reported by students in the six groups as ways that they had learned about occupations prior to the 1970-71 school year. In addition to the above two choices, approximately 60 percent of the Patterson tenth grade students also selected "trying some of the training required by the occupation" and "taking special course(s) dealing with occupations."

Table 8

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 1

Question 1. Indicate all the ways in which you have learned at school about occupations before this (1970-71) school year.	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Field trips to observe people at work.	Fall	53	37	56	33	61	70
	Spring	65	57	46	29	65	66
1. Information from a special class on careers.	Fall	22	20	21	24	25	40
	Spring	25	26	21	21	22	45
2. Talks at school by people who know about or work at Occ.	Fall	56	44	57	59	55	64
	Spring	48	51	50	54	53	66
3. Trying some of the training required for the occupation.	Fall	19	18	12	20	14	59
	Spring	13	12	13	19	20	62
4. Getting information about occupations in your regular academic classes.	Fall	30	32	28	30	34	43
	Spring	24	28	25	31	34	46
5. Reading about occupations from information in the school library or guidance office.	Fall	39	42	28	32	46	41
	Spring	26	32	33	30	50	38
6. Talking to a guidance counselor.	Fall	15	19	26	27	34	36
	Spring	12	14	22	26	32	40
7. Taking special course(s) dealing with occupations.	Fall	15	20	11	17	11	61
	Spring	12	13	09	22	14	58
8. Other.	Fall	30	21	25	33	29	25
	Spring	27	29	27	33	28	28
9. None of the above.	Fall	14	16	12	12	05	03
	Spring	17	12	09	11	07	01

Question 2 stated, "Indicate all the ways which you have learned at school about occupations this (1970-71) school year." Data from Question 2 from fall and spring tests for the six groups are presented in Table 9. In general, a higher percentage of students from the experimental schools than the control school indicated on the spring survey that "field trips to observe people at work," "information from a special class on careers," and "talks at school by people who know about or work at the occupation" were ways that they had learned at school about occupations during the 1970-71 school year. A higher percentage of Patterson students than Woodward or Waite students indicated in the fall and spring "trying some of the training required for the occupation," "getting information about occupations in your regular classes," "reading about the occupations from information in the school library or guidance office", "and taking a special course dealing with occupations."

Table 10 presents the percentage of student responses from the fall and spring longitudinal groups for Question 10. The student was asked to indicate the sources at school which were most helpful to him in learning about the occupation he was considering. Question 10 stated, "From the time you were in the first grade until now, which one of the following sources at school has been the most helpful to you in learning about the occupation you are considering?" A significant number of students in the ninth and tenth grades at Woodward and in the ninth grade at Patterson answered this question differently in the spring than in the fall. In the spring, an increase of ten percent or more of the students from each of the three groups named "field trips to observe people at work" in response to Question 10, while the percentage of response for "none of the above" decreased. Responses for tenth grade Woodward students increased 5 percent or more in the spring over the fall for "talks at school by people who know about or work at the occupation," and "other". "Trying some of the training required for the occupation" was listed by 7 percent more Patterson ninth grade students in the spring than in the fall, while "taking special course(s) dealing with occupations" was named by 4 percent more of these students in the spring.

In addition to the above differences, there was a significant difference in the change of responses from fall to spring on Question 10 between the ninth grade longitudinal group from Woodward and the ninth grade longitudinal group from Waite. The major difference in the responses of the two groups was the increase of 17 percent of the ninth grade Woodward students choosing "Field trips to observe people at work" and the decrease of 10 percent of the group stating "None of the above", while responses of Waite students changed little. It is interesting to note that field trips were judged more useful than "hands-on" experience by ninth grade students at Patterson and the two experienced were judged almost equal by tenth grade Patterson students.

In addition to the ways at school that he had learned about occupations, each student was asked to indicate with which people he had discussed the occupations that were of most interest to him and which of the people were the most helpful to him in learning about the occupations. A survey of the responses on questions 3 and 18 suggest a similarity of responses for the six groups. By ranking the percentage of responses from highest to lowest, one can ascertain a pattern of communication by students in discussing with others the occupations that are of most interest to them.

Table 9

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 2

Question 2. Indicate all the ways which you have learned at school about occupations this (1970-71) school year.	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Field trips to observe people at work.	Fall	18	13	16	14	27	23
	Spring	83	81	23	14	78	48
1. Information from a special class on careers.	Fall	14	16	16	16	46	36
	Spring	40	43	28	20	58	51
2. Talks at school by people who know about or work at the occupation.	Fall	25	26	20	43	55	51
	Spring	75	76	33	44	68	69
3. Trying some of the training required for the occupation.	Fall	15	21	07	19	57	74
	Spring	11	16	18	18	73	80
4. Getting information about occupations in your regular academic classes.	Fall	24	25	23	23	31	46
	Spring	28	28	27	30	40	59
5. Reading about the occ. from information in the school library or guid. off.	Fall	19	21	19	23	33	31
	Spring	27	29	35	24	52	40
6. Conversation with a guidance counselor.	Fall	13	12	14	16	11	24
	Spring	16	19	19	24	24	43
7. Taking a special course dealing with occupations.	Fall	15	23	15	18	58	59
	Spring	14	16	13	22	58	67
8. Other.	Fall	18	17	15	21	13	20
	Spring	23	25	22	23	18	26
9. None of the above.	Fall	38	32	39	26	03	01
	Spring	06	04	19	17	00	01

Table 10

COMPARISON OF THE MOST HELPFUL WAYS FOR LEARNING ABOUT OCCUPATIONS AT SCHOOL

Question 10. From the time you were in the first grade until now, which of the following sources at school has been most helpful to you in learning about the occupation you are considering.	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506[ab]	Grade 10 N=382[a]	Grade 9 N=206[b]	Grade 10 N=344	Grade 9 N=414[a]	Grade 10 N=476
0. Field trips to observe people at work.	Fall	21	16	18	10	20	18
	Spring	38	28	18	09	30	20
1. Information from a special class on careers.	Fall	05	02	01	02	04	03
	Spring	06	03	05	03	04	04
2. Talks at school by people who know about or work at the occupation.	Fall	15	14	19	19	12	11
	Spring	16	22	16	22	10	10
3. Trying some of the training required for the occupation.	Fall	06	08	04	08	12	25
	Spring	04	03	05	06	19	24
4. Information from your regular academic classes.	Fall	07	14	12	09	06	05
	Spring	04	05	07	12	04	04
5. Reading about the occupation from information in the school library or guidance office.	Fall	10	14	13	11	10	07
	Spring	07	08	11	07	06	04
6. Conversations with a guidance counselor.	Fall	01	02	04	04	03	02
	Spring	02	03	06	04	01	03
7. Taking special course(s) dealing with occupations.	Fall	05	07	02	05	08	13
	Spring	01	04	06	07	12	16
8. Other.	Fall	07	07	09	12	12	10
	Spring	09	13	09	13	08	11
9. None of the above.	Fall	22	17	18	19	13	06
	Spring	12	11	16	17	06	04

a = Difference between fall and spring responses for this group significant at the .01 level.
b = Difference in change of responses from fall to spring between Woodward ninth grade and Waite ninth grade significant at .01 level.

Table 11 presents a ranking of student responses from the fall and spring longitudinal groups for Question 3 which asked, "With which of the following people have you discussed the occupations that are of most interest to you?", and Question 18 which asked "Of those people you have discussed occupations with, which one do you feel helped you most to learn about the occupation?"

Examination of the data from Table 11 shows that there were few changes in rankings of persons from the fall to spring testing on Question 3. Parents were ranked #1 and friends #2 on both dates by all longitudinal groups on Question 3. On Question 18, however, when the student was asked to indicate the most helpful person to him in learning about occupations, both friends and relatives tended to be ranked lower by all groups than on Question 3. Someone working in the occupation and teachers tended to be ranked higher. Only Patterson students ranked teachers higher than parents on Question 18. Changes in ranking of persons from fall to spring by all groups tended to be evenly distributed.

Table 12 provides additional data for Question 18 which asked, "Of those people you have discussed occupations with, which one do you feel helped you most to learn about the occupation?" A smaller percentage of students from all groups in the spring named "your parents" as being most helpful in learning about the occupation. The percentage of Woodward ninth and tenth grade students selecting "Someone other than the above who works at the occupation" increased from 10 and 12 percent respectively in the fall to 18 percent for both groups in the spring. The most observable change in the responses of the Patterson students was the increase in the percentage of students selecting "your teachers" in the spring when compared to the fall. The increase was from 22 percent to 38 percent for the ninth grade and 36 percent to 46 percent for the tenth grade Patterson students. The change in responses for Question 18 from fall to spring within the ninth and tenth grade groups from Woodward and Patterson was significant at the .01 level. When considering the difference in the change of responses from fall to spring between groups, a significant difference was found between Woodward and Patterson ninth grade students (.01), between Woodward and Patterson tenth grade students (.01), and between Waite and Patterson ninth grade students (.05).

An important element in gaining knowledge of the world of work and in developing a positive attitude toward work is actual on-the-job experience. Question 24 of the CPS attempted to determine the percentage of students in each of the six groups having a job at the time of pretesting and at the time of posttesting. This data not only reveals the percentage of students working in the fall and spring, but allows for a comparison within and between each group from fall to spring. Data from the experimental and control groups should be beneficial in determining if significant differences, which might be attributed to the Career Exploration Programs, exist between the groups.

Examination of the data presented in Table 13 reveals that 23 to 28 percent of the students from all groups reported in the fall that they had "A regular job outside the home where you work at least once every week and get paid for it." The percentage of response for "No job outside the home" for the fall testing ranged from 43 percent Waite tenth grade students to

Table 11

RANK, BASED ON PERCENTAGES OF RESPONSES, OF PERSONS WITH WHOM STUDENTS DISCUSSED OCCUPATIONS

Question 3. With which of the following people have you discussed the occupations that are of most interest to you? (Mark all that apply.)	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Parents	Fall	1	1	1	1	1	1
	Spring	1	1	1	1	1	1
1. Relatives	Fall	4	3	4	3	3	4
	Spring	5	3	3	3	3	4
2. Friends	Fall	2	2	2	2	2	2
	Spring	2	2	2	2	2	2
3. Teachers	Fall	3	4	3	4	4	3
	Spring	3	4	4	4	4	3
4. Counselor	Fall	7	6	7	6	6	6
	Spring	7	6	6	6	6	6
5. Principal	Fall	8	9	8	9	8	8
	Spring	9	9	8	9	8.5	8
6. Worker	Fall	5	5	5	5	5	5
	Spring	4	5	5	5	5	5
7. No one	Fall	9	8	9	8	9	9
	Spring	8	8	9	8	8.5	9
8. Other	Fall	6	7	6	7	7	7
	Spring	6	7	7	7	7	7

Note: Responses are abbreviated from the CPS.

Table 11
(continued)

RANK, BASED ON PERCENTAGES OF RESPONSES, OF PERSONS WITH WHOM STUDENTS DISCUSSED OCCUPATIONS

Question 18. Of those people you have discussed occupations with, which one do you feel helped you most to learn about the occupation? (Mark only one.)	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Parents	Fall	1	1	1	1	1	2
	Spring	1	1	1	1	2	2
1. Relatives	Fall	5.5	6	6	5.5	4	7.5
	Spring	6	6	6	6.5	5	7.5
2. Friends	Fall	3.5	5	5	5.5	7	4
	Spring	3	5	4	3	4	4.5
3. Teachers	Fall	2	2	2	2.5	2	1
	Spring	4	3.5	3	5	1	1
4. Counselor	Fall	8	8	7	7.5	6	5.5
	Spring	8	8	7	6.5	6.5	4.5
5. Principal	Fall	9	9	9	9	9	9
	Spring	9	9	9	9	9	9
6. Worker	Fall	5.5	4	4	4	3	3
	Spring	2	2	5	2	3	3
7. No one	Fall	3.5	3	3	2.5	5	5.5
	Spring	5	3.5	2	4	6.5	6
8. Other	Fall	7	7	8	7.5	8	7.5
	Spring	7	7	8	8	8	7.5

Note: Responses are abbreviated from the CPS.

Table 12

COMPARISON OF THE PEOPLE WHO WERE MOST HELPFUL TO THE STUDENT IN LEARNING ABOUT OCCUPATIONS

Question 18. Of those people you have discussed occupations with, which one do you feel helped you most to learn about the occupation?	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506[ab]	Grade 10 N=383[ac]	Grade 9 N=206[d]	Grade 10 N=344	Grade 9 N=414[abd]	Grade 10 N=476[ac]
0. Your parents.	Fall	39	36	39	37	28	21
	Spring	32	23	38	34	22	15
1. Your relatives.	Fall	10	07	07	10	09	05
	Spring	07	07	07	06	06	04
2. Your friends.	Fall	11	08	09	10	06	07
	Spring	12	12	11	13	08	08
3. Your teachers.	Fall	14	17	14	12	22	36
	Spring	11	15	12	10	38	46
4. Your guidance counselor.	Fall	01	02	04	04	07	06
	Spring	05	03	06	06	05	08
5. Your principal.	Fall	00	00	01	01	00	00
	Spring	01	01	00	01	00	00
6. Someone other than the above who works at the occupation.	Fall	10	12	10	11	14	13
	Spring	18	18	08	14	13	09
7. No one.	Fall	11	13	13	12	08	06
	Spring	09	15	15	12	05	05
8. Other.	Fall	05	04	03	04	05	05
	Spring	06	05	03	04	03	04

a = Difference between fall and spring responses for this group significant at .01 level.
b = Difference in change of responses from fall to spring between Woodward and Patterson 9th grade significant at .01 level.
c = Difference in change of responses from fall to spring between Woodward and Patterson 10th grade significant at .01 level.
d = Difference in change of responses from fall to spring between Waite and Patterson 9th grade significant at .05 level.

Table 13

PERCENTAGE OF STUDENTS WORKING DURING THE SCHOOL YEAR

Question 24. In regard to working, do you now have:	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506[ab]	Grade 10 N=383[ac]	Grade 9 N=206[abd]	Grade 10 N=344[ce]	Grade 9 N=414[ad]	Grade 10 N=476[ae]
0. A regular job outside the home where you work at least once every week and get paid for it.	Fall	28	26	23	28	26	24
	Spring	30	27	37	29	26	25
1. A job outside the home where you work occasionally (less than once a week) and get paid for it.	Fall	25	21	32	28	22	19
	Spring	28	26	27	26	28	21
2. No job outside the home.	Fall	47	53	45	43	51	57
	Spring	41	45	36	44	47	53

a = Difference between the fall and spring results for this group significant at the .01 level.
b = Difference in change of responses from fall to spring between Woodward and Waite 9th grades significant at the .05 level.
c = Difference in change of responses from fall to spring between Woodward and Waite 10th grades significant at the .01 level.
d = Difference in change of responses from fall to spring between Waite and Patterson 9th grades significant at the .01 level.
e = Difference in change of responses from fall to spring between Waite and Patterson 10th grades significant at the .01 level.

57 percent for the Patterson tenth grade students. When comparing changes from fall to spring within each of the six groups, all the groups with the exception of Waite tenth grade students reported increased job activity outside the home in the spring. The differences between the fall and spring responses within groups were significant at the .01 level for the Woodward ninth and tenth grades, the Waite ninth grade, and the Patterson ninth and tenth grades. The differences in the change of responses from fall to spring were significant between Woodward and Waite ninth grades (.05); between Woodward and Waite tenth grades (.01); between Waite and Patterson ninth grades (.01); and between Waite and Patterson tenth grades (.01).

The process of decision making presupposes that the decision maker has available to him sufficient information concerning the subject to act. In order for one to make an occupational choice, he must perceive that he has enough information about the jobs that interest him to make a decision. Question 17, which asked "In regard to your choice of an occupation, do you feel: "focused directly on the adequacy of the career information available to the students in the three schools." Table 14 presents the results of Question 17 for all six groups for the fall and spring testing. As one can see from the data presented, fewer than 40 percent of the Woodward or Waite students replied in the fall and spring that they had "...enough information about the jobs that interest you to choose the occupation you would like to enter." The only group in which a majority of the students stated both in the fall and spring that they felt that they had enough information about jobs that interest them to choose an occupation was the tenth grade group from Patterson. The only change of more than a few percentage points within any group between the fall and spring results occurred for the Patterson ninth grade group. The percentage of Patterson ninth grade students agreeing that they had "...enough information about the jobs that interest you to choose the occupation you would like to enter" increased from 31 percent in the fall to 58 percent in the spring. The percentage of students from the same group stating that they had "...some information about the jobs that interest you, but not enough for you to make up your mind" decreased from 65 percent in the fall to 39 percent in the spring.

The F ratios and the pretest, posttest, and adjusted means for all groups on Question 17 are presented in Table 14A. The F ratios indicate that there were significant differences (.01 level) among the responses of both the ninth and tenth grade groups. Further analysis of the adjusted means of the responses for each group show that the Patterson groups were significantly higher (toward having enough information about jobs to choose one) than the Woodward or Waite groups. The adjusted mean for the Woodward tenth grade group was significantly higher (toward having enough information about jobs to choose one) than the Waite tenth grade group.

Discussion

The process of how an individual has learned about occupations during his school experience is important in assessing the value of career education programs. The findings reported in the previous section suggest that prior to the 1970-71 school year, students in the experimental and control schools were exposed to occupational information in a variety of ways. The ways most often recalled by all groups were field trips and talks at school by people

Table 14

PERCENTAGE OF STUDENT RESPONSES CONCERNING ADEQUACY OF INFORMATION ABOUT JOBS

Question 17. In regard to your choice of an occupation, do you feel:	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. You have enough information about jobs that interest you to choose the occupation you would like to enter.	Fall	29	32	36	35	31	59
	Spring	28	33	40	30	58	57
1. You have some information about the jobs that interest you, but not enough for you to make up your mind.	Fall	54	52	52	54	65	38
	Spring	57	56	47	58	39	42
2. You don't have any information about the jobs that interest you to help you make up your mind.	Fall	17	15	12	11	04	02
	Spring	15	10	13	12	02	01

Table 14A

PRETEST, POSTTEST AND ADJUSTED MEANS FOR ALL GROUPS ON QUESTION 17

Question 17. In regard to your occupation, do you feel:
0. You have enough information about jobs that interest you to choose the occupation you would like to enter.
1. You have some information about the jobs that interest you, but not enough for you to make up your mind.
2. You don't have any information about the jobs that interest you to help you make up your mind.

GROUPS	MEANS			F
	Pretest	Posttest	Adjusted	
Ninth Grade				
Wood	0.8817	0.8698	0.8488	
Wt	0.7656	0.7368	0.7471	50.997**
Patt	0.7271	0.4372	0.4578[a]	
Tenth Grade				
Wood	0.8277	0.7650	0.7044[b]	
Wt	0.7536	0.8174	0.7818	25.770**
Patt	0.4277	0.4361	0.5105[a]	

a = Patterson significantly higher than Woodward or Waite.
b = Woodward significantly higher than Waite.
** = Significant at .01 level.

familiar with the occupation. The high percentage of Patterson tenth grade students reporting trying some of the training required in the occupation and taking special courses dealing with occupations may be explained by the fact that these vocational school students had participated in a "Career Exploration Program" as ninth graders even though the program did not carry a formal title.

The experiences provided for students in the experimental Career Exploration Programs become evident when one compares the fall and spring responses of the experimental and control students. Field trips, talks at school by people familiar with the occupation, and to some extent, special classes on careers were cited as helpful by students of both experimental schools to a greater degree in the spring than in the fall. In addition, a high percentage of Patterson students reported trying some of the training required by the occupation, getting information from regular academic classes, reading about the occupation, and taking special courses dealing with occupations. In general, it appears that the Patterson students were exposed to a greater variety of experiences designed to help them explore career opportunities than were the students from Woodward and Waite.

It is interesting to note the value that the students from the experimental schools placed upon the experiences provided in terms of being helpful in learning about occupations. The most popular choice of Woodward students was the field trip to observe people at work. Although responses by Patterson students to Question 2 indicated a variety of experiences had been provided, field trips were selected by the highest percentage of ninth grade students and by the second highest percentage of tenth grade students. The selection of the most helpful means of learning about occupations suggest that the students are interested in observing someone working at the occupation and talking with him concerning the occupation. The importance of actually trying some of the training required by the occupation is difficult to assess for any of the students other than those in the vocational school setting. This may be due to the design of the Woodward CEP which did not provide for "hands-on" experiences as a means of stimulating career education.

Emphasis of Patterson students on teachers as being most helpful in learning about occupations may be the result of the teacher's vocational orientation. Since the vocational education teacher's interest and skills are so closely related to the occupational requirements for which he is training his students, he is more likely than a teacher in a general program to relate the subject matter to specific job settings. A vocational student who has already made a commitment to occupational training, would likely perceive the vocational teacher as being most helpful in learning about the occupation of his choice. In any case, one cannot negate the importance of significant others in the decision-making process when it comes to a student choosing a career.

Vocational education students are often thought of as working part-time while attending school. Findings from Question 24 indicate, however, that a higher percentage of Woodward and Waite than Patterson students worked outside the home. It is also interesting to note that all three schools a greater percentage of ninth than tenth graders reported outside jobs.

Finally, the findings about the adequacy of the information about jobs of interest to the students indicate that more Patterson than Woodward or Waite students believed that they had sufficient information to make a decision. These findings may have resulted from the vocational education student's commitment to a training program in preparation for a more or less specific occupation. Such a decision would have necessitated the narrowing of his focus to a selected number of jobs. A student in a general high school, on the other hand, has not had to be as specific in selecting his course of study. Therefore, he may believe that he has a larger field from which to select an occupation. If this hypothesis is true, then the scope of a CEP for a general high school would have to be more comprehensive than a similar program for a vocational school.

Hypothesis 2A: That students' educational and vocational plans and goals will change significantly as a result of the Career Exploration Program.

By testing Hypothesis 2A it was hoped to determine whether or not a greater percentage of students in the six groups had changed their educational and vocational plans as a result of the Career Exploration Program. The items on the Career Plans Survey utilized to test this hypothesis consisted of two parallel series of 4 questions each. One series, Questions 11, 19, 21, and 23, dealt with the student's educational plans for grades 11 and 12. The second series, Questions 12, 16, 20, and 22, concerned the student's plans for himself after leaving high school. Both series of questions sought the student's responses in terms of his ability, his parent's wishes, his own desires, and his actual plans. By examining these four factors, it was believed that one could come to a better understanding of not only what influenced the student's decision (ability, parents, self), but also what his actual choice was at the time of testing. By giving special attention to the "undecided" choice for each question, the investigators were able to determine whether or not a greater percentage of students had definite education and vocational plans and goals as a result of the Career Exploration Program.

By analyzing the results from fall and spring on these two series of items for each group, the investigators were able to determine if the groups had changed significantly in their educational and vocational plans during the time of the Career Exploration Program. By comparing the change in the results from fall to spring among groups, it was possible to determine whether there was a significant change in responses between an experimental and a control group, or between two experimental groups.

Findings

One factor which affects the decision-making process of an individual is his perception of his own interests and abilities. The purpose of Question 23 was to have the student consider his selection of a course of study for grades 11 and 12 in relation to his perceived interests and abilities. Question 23 asked, "Considering your interests and abilities, which high school course of study do you think you should take?" Table 15 presents the percentage of responses on this question for the six longitudinal groups

Table 15

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 23

Question 23. Considering your interests and abilities, which high school course of study do you think you should take? (Mark only one.)	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N-506[ad]	Grade 10 N=382	Grade 9 N=206[c]	Grade 10 N=344[b]	Grade 9 N=414[acd]	Grade 10 N=476[d]
0. College preparatory (academic).	Fall	23	28	26	23	25	22
	Spring	21	26	28	24	27	18
1. Business or commercial.	Fall	17	19	28	30	19	15
	Spring	18	18	28	27	12	13
2. Vocational or technical.	Fall	17	20	10	13	30	50
	Spring	21	21	13	14	47	57
3. General.	Fall	12	14	11	08	05	03
	Spring	09	14	10	11	03	03
4. Other.	Fall	11	06	07	08	05	02
	Spring	11	08	09	12	01	03
5. Undecided.	Fall	19	13	19	17	16	09
	Spring	19	12	13	13	10	05

a = Difference between the fall and spring results within this group significant at .01 level.
b = Difference between the fall and spring results within this group significant at .05 level.
c = Difference in change of responses from fall to spring between Waite and Patterson 9th grade significant at the .05 level.
d = Difference in change of responses from fall to spring between Woodward and Patterson 9th grade significant at the .05 level.

for the fall and spring testing. Examination of the data presented in Table 15 shows that the Patterson tenth grade students had the highest percentage of response for any one choice on Question 23 for the fall testing. "Vocational or technical" was the course of study chosen by 50 percent of the Patterson tenth grade students, while 30 percent of the Patterson ninth grade students made the same selection. Other selections of the six groups were fairly evenly distributed over the six choices provided; with the greater emphasis in the area of "college preparatory". Three of the six groups changed significantly (.01 level) from fall to spring in their responses to Question 23. The most apparent change for all three, Woodward ninth grade and Patterson ninth and tenth grades, was in the direction of a greater percentage of students selecting a "Vocational or technical" course of study. There was also a significant difference (.05 level) between the fall and spring responses of the Waite tenth grade students. The change for this group, however, seemed to be randomly distributed among several of the choices. The difference in the change of responses from fall to spring were found to be significant at the .05 level between Woodward and Patterson ninth grade students, and between Waite and Patterson ninth grade students. The differences in the change of responses from fall to spring among the tenth grades from the three schools were not significant.

A second factor which may affect the decision-making process of an individual is what he thinks his parents want him to do. Question 21 was designed to determine what course of study the student thought his parents wanted him to pursue in grades 11 and 12. Question 21 asked, "Which course of study would <u>your parents</u> like for you to take in grades 11 and 12?" Table 16 presents the percentage of responses on this question for the six longitudinal groups for the fall and spring testing. The highest percentage of students selecting a given choice in the fall was the 38 percent of the Patterson tenth grade students who said that their parents would like them to take a "Vocational or technical" course of study in grades 11 and 12. The percentage of students selecting "College preparatory" as representing their parents' wishes ranged from 23 percent of the Woodward ninth grade students to 31 percent of the Woodward tenth grade students. "Business or commercial" and "Undecided" were other choices receiving approximately 20 percent or more of the responses for most groups. The responses of the four experimental groups changed significantly from fall to spring. Changes in the responses of Woodward ninth and tenth grade students were significant at the .05 level, while differences in the responses of the Patterson ninth and tenth grade students were significant at the .01 level. The changes between the fall and spring responses of the Woodward groups tended to be fairly evenly distributed among the six possible choices. A higher percentage of Patterson students, approximately 10 percent more in ninth and tenth grade, stated in the spring that their parents would like them to take a "Vocational or technical" course of study in grades 11 and 12. A number of the differences in the change of responses from fall to spring between groups were found to be significant. The difference in change of responses from fall to spring between Waite ninth grade students and Patterson ninth grade students was significant at the .01 level. The differences in the change of responses from fall to spring between Waite and Patterson tenth grade students, Woodward and Patterson tenth grade students, and Patterson ninth and tenth grade students were significant at the .05 level.

Table 16

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 21

Question 21. Which course of study would your parents like for you to take in grades 11 and 12? (Mark only one.)	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506[bf]	Grade 10 N=382[bef]	Grade 9 N=206[c]	Grade 10 N=344[d]	Grade 9 N=414[acg]	Grade 10 N=475[adeg]
0. College preparatory (academic.)	Fall	23	31	26	27	30	28
	Spring	24	25	27	24	30	22
1. Business or commercial.	Fall	18	19	24	26	17	12
	Spring	17	18	27	25	09	14
2. Vocational or technical.	Fall	15	16	08	14	27	38
	Spring	19	18	09	14	39	49
3. General.	Fall	08	10	09	06	01	03
	Spring	08	09	07	10	01	03
4. Other.	Fall	08	04	05	06	06	01
	Spring	10	07	08	07	03	02
5. Undecided.	Fall	27	20	27	20	20	18
	Spring	23	21	22	20	17	11

a = Difference between the fall and spring results within this group significant at .01 level.
b = Difference between the fall and spring results within this group significant at .05 level.
c = Difference in change of responses from fall to spring between Waite and Patterson 9th grade significant at the .01 level.
d = Difference in change of responses from fall to spring between Waite and Patterson 10th grade significant at the .05 level.
e = Difference in change of responses from fall to spring between Woodward and Patterson 10th grade significant at the .05 level.
f = Difference in change of responses from fall to spring between Woodward 9th and 10th grade significant at the .05 level.
g = Difference in change of responses from fall to spring between Patterson 9th and 10th grade significant at the .05 level.

The third question of the series was an attempt to determine which course of study an individual would take in grades 11 and 12 if he could take any that he wanted. Question 11 asked "If you could take any course of study you wanted in grades 11 and 12, which would you take?" The responses for the six longitudinal groups for the fall and spring testing can be seen in Table 17. Once again, the highest percentage of response for any group on the fall testing was the 46 percent of the Patterson tenth grade students selecting a "Vocational or technical" course of study. Popular choices for most of the groups on the fall testing were "College preparatory", "Business or commercial", "Vocational or technical", and "Undecided". Changes from fall to spring for Woodward ninth and tenth grade students and Patterson ninth and tenth grade students were significant at the .01 level. The change in responses from fall to spring for Waite tenth grade students was significant at the .05 level. The changes in responses for the Woodward students and the Waite tenth grade students tended to be random in nature. The most apparent change in the responses of the Patterson students was the increase from fall to spring of from 30 percent to 44 percent of the ninth grade students and from 46 percent to 57 percent of the tenth grade students selecting a "Vocational or technical" course of study. Significant differences (.05 level) were found in the difference in the change of responses from fall to spring between Waite and Patterson ninth grade students and between the Waite and Patterson tenth grade groups. The differences in the change of responses from fall to spring between Woodward and Patterson tenth grade groups and between Woodward ninth and tenth grade groups were significant at the .01 level.

Question 19, the final one of the series, asked "Which course of study do you plan to take in grades 11 and 12?" It was assumed by the investigators that the student's answer to this question would reflect his decision based not only on the influence considered in questions 11, 21, and 23, but also the other influences of which the student may or may not be aware. The responses for the six longitudinal groups for the fall and spring testing are presented in Table 18. As in the previous three questions, the highest percentage of students selecting any one choice in the fall were the 52 percent of the Patterson tenth grade students choosing "Vocational or technical" as the course of study they planned to take in grades 11 and 12. The same choice was made by 31 percent of the Patterson ninth grade students. Changes in responses within groups from fall to spring were significant at the .01 level for Woodward ninth and tenth grade students, Waite tenth grade students, and Patterson ninth and tenth grade students. Two changes between the fall and spring responses within groups were apparent. One of these changes was the increase in the percentage of Patterson students selecting "Vocational or technical" as the course of study they planned to take in grades 11 and 12. The second apparent change was the decrease of 4 percent or more of the students from each group who stated that they were "Undecided" about what they planned to take in grades 11 and 12. The differences in the change of responses from fall to spring were significant at the .01 level between waite and Patterson ninth grades, Woodward and Patterson ninth grades, and Woodward and Patterson tenth grades. The differences in the change of responses from fall to spring were significant at the .05 level between Waite and Patterson tenth grades, and between Woodward ninth and tenth grades.

Table 17

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 11

Question 11. If you could take any course of study you wanted in grades 11 and 12, which would you take? (Mark only one.)	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506[af]	Grade 10 N=382[aef]	Grade 9 N=206[c]	Grade 10 N=344[bd]	Grade 9 N=414[ac]	Grade 10 N=476[ade]
0. College preparatory (academic.)	Fall	22	25	27	22	28	22
	Spring	22	27	30	22	27	19
1. Business or commercial.	Fall	17	18	23	30	18	15
	Spring	18	17	26	26	13	13
2. Vocational or technical.	Fall	16	25	11	15	30	46
	Spring	24	22	16	15	44	57
3. General.	Fall	10	09	09	07	02	03
	Spring	11	11	06	12	01	02
4. Other.	Fall	13	11	08	09	05	03
	Spring	11	10	07	09	03	03
5. Undecided.	Fall	21	11	22	17	17	11
	Spring	16	12	16	15	11	05

a = Difference between the fall and spring results within this group significant at .01 level.
b = Difference between the fall and spring results within this group significant at .05 level.
c = Difference in change of responses from fall to spring between Waite and Patterson 9th grade significant at .05 level.
d = Difference in change of responses from fall to spring between Waite and Patterson 10th grade significant at .05 level.
e = Difference in change of responses from fall to spring between Woodward and Patterson 10th grade significant at .01 level.
f = Difference in change of responses from fall to spring between Woodward 9th and 10th grade significant at .01 level.

Table 18

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 19

Question 19. Which course of study do you plan to take in grades 11 and 12? (Mark only one.)	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506[acf]	Grade 10 N=382[aef]	Grade 9 N206[b]	Grade 10 N=344[ad]	Grade 9 N=414[abc]	Grade 10 N=476[ade]
0. College preparatory (academic).	Fall	20	26	23	21	25	17
	Spring	21	26	25	21	23	13
1. Business or commercial.	Fall	15	18	24	32	16	14
	Spring	17	16	27	28	11	16
2. Vocational or technical.	Fall	16	19	07	10	31	52
	Spring	17	17	10	11	50	62
3. General.	Fall	13	13	10	09	03	03
	Spring	13	20	09	18	01	04
4. Other.	Fall	10	05	06	08	04	02
	Spring	11	05	07	10	01	01
5. Undecided.	Fall	25	19	29	19	21	11
	Spring	21	15	22	13	14	04

a = Difference between the fall and spring results within each of these groups significant at .01 level.
b = Difference in change of responses from fall to spring between Waite and Patterson 9th grade significant at .01 level.
c = Difference in change of responses from fall to spring between Woodward and Patterson 9th grade significant at .01 level.
d = Difference in change of responses from fall to spring between Waite and Patterson 10th grade significant at .05 level.
e = Difference in change of responses from fall to spring between Woodward and Patterson 10th grade significant at .01 level.
f = Difference in change of responses from fall to spring between Woodward 9th and 10th grade significant at .05 level.

The first item of the second series of questions utilized to collect data pertinent to Hypothesis 2A was concerned with the individual's post-high school plans in relation to his perceived interests and abilities. Question 20 asked "Considering your interests and abilities, which of the following do you think you should do after leaving high school?" Analysis of the data presented in Table 19 yielded no significant differences in the change of responses from fall to spring either within groups or between groups. Examination of the data for Question 20 did provide some interesting trends. With the exception of the spring results for Waite ninth grade students, 25 percent or more of all the groups on both the fall and spring surveys selected "Go to college or university (4 years)" as being what they thought they should do after leaving high school. The highest percentage of students from any school selecting this choice in the spring was the Patterson ninth grade group of whom 39 percent answered in this manner. No more than 10 percent of the students from any group in the fall or spring answered "Take a job that requires no additional training". Between 9 percent and 17 percent of the students in the six groups stated in the spring that they were "Undecided".

A second factor which affects the student's decision of what he will do after leaving high school is what his parents want him to do. Question 12, which asked "Which of the following would your parents like for you to do after leaving high school?" Analysis of the data presented in Table 20 yielded no significant differences in the change of responses from fall to spring within groups or between groups. The choices to Question 12 receiving the highest percentage of responses from all groups were "Go to a college or university (4 years)" and "Undecided". Between 5 percent and 21 percent more students selected "Go to a college or university (4 years)" on Question 20. In other words, students tended to perceive their parents as wanting them to go to college.

A third factor that affects the individual's choice of what he does is what he, himself, desires. Question 22 was an attempt to determine what the student would do after leaving high school provided he could do anything he wished. Question 22 asked "If you could do anything you wanted after leaving high school, which of the following would you do?" Analysis of the data presented in Table 21 provided no significant differences in the change of responses from fall to spring within groups or between groups. Once again, as on the previous two items, the highest percentage of students within each of the groups selected "Go to college or university (4 years)" in response to the question. Approximately the same number of students as on the previous two items stated that they were "Undecided". Other responses were, in general, similar to those for Questions 12 and 20.

The final question in the series was designed to solicit the individual's actual plans for himself after leaving high school. Question 16 asked "Which of the following do you actually plan to do after leaving high school?" Analysis of the data presented in Table 22 provided no significant differences in the change of responses from fall to spring within groups or between groups. Once again, the choice receiving the highest percentage of responses was "Go to a college or university (4 years)". A higher percentage of Patterson students selected this choice than did students from Woodward and Waite. It is also interesting to note that the percentage of response for this choice was very similar to the percentage of response for the same choice on

Table 19

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 20

Question 20. Considering your interests and abilities, which of the following do you think you should do after leaving high school? (Mark only one.)	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Go to vocational or technical school.	Fall	07	09	03	07	08	12
	Spring	09	12	04	07	09	10
1. Go to business school (non-college).	Fall	08	11	11	17	08	06
	Spring	12	09	13	14	06	05
2. Go to nursing school (college or non-college).	Fall	08	06	07	05	07	04
	Spring	06	08	09	05	08	03
3. Go to junior or community college (2 years).	Fall	05	05	08	06	04	10
	Spring	04	05	05	04	09	09
4. Go to college or university (4 years).	Fall	28	32	35	26	40	36
	Spring	25	27	30	25	39	36
5. Go into military service.	Fall	07	07	06	06	04	05
	Spring	09	06	07	06	04	05
6. Go into apprenticeship or other on-the-job training.	Fall	06	08	05	04	09	10
	Spring	05	08	02	08	09	12
7. Take a job that requires no additional training.	Fall	09	07	06	08	05	06
	Spring	06	05	08	10	04	05
8. Other.	Fall	09	06	03	06	03	03
	Spring	05	04	05	09	03	04
9. Undecided.	Fall	14	09	16	15	11	08
	Spring	17	15	17	12	09	10

Table 20

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 12

Question 12. Which of the following would your parents like for you to do after leaving high school? (Mark only one.)	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Go to vocational or technical school.	Fall	05	07	05	06	06	07
	Spring	08	07	05	06	04	07
1. Go to business school (non-college).	Fall	08	10	09	12	05	04
	Spring	10	09	14	11	04	05
2. Go to nursing school (college or non-college).	Fall	08	05	08	06	06	04
	Spring	07	09	06	06	07	04
3. Go to junior or community college (2 years).	Fall	04	04	07	03	04	07
	Spring	05	04	05	04	06	08
4. Go to college or university (4 years).	Fall	36	40	40	34	47	46
	Spring	34	35	34	31	48	41
5. Go into military service.	Fall	03	04	03	04	02	02
	Spring	04	03	01	04	01	02
6. Go into apprenticeship or other on-the-job training.	Fall	05	06	03	05	09	08
	Spring	04	06	04	08	07	09
7. Take a job that requires no additional training.	Fall	05	04	07	06	04	04
	Spring	05	05	05	06	04	05
8. Other.	Fall	07	04	05	07	06	06
	Spring	05	05	06	08	04	05
9. Undecided.	Fall	19	15	14	17	12	13
	Spring	18	17	20	15	14	16

Table 21

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 22

Question 22. If you could do anything you wanted after leaving high school, which of the following would you do? (Mark only one.)	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Go to vocational or technical school.	Fall	08	07	04	07	07	08
	Spring	06	10	04	05	07	07
1. Go to business school (non-college).	Fall	07	08	13	15	07	05
	Spring	09	07	11	12	06	04
2. Go to nursing school (college or non-college).	Fall	07	07	06	05	06	04
	Spring	08	08	08	06	08	03
3. Go to junior or community college (2 years).	Fall	03	03	05	05	05	08
	Spring	05	04	04	01	07	08
4. Go to college or university (4 years).	Fall	29	31	33	23	37	36
	Spring	25	26	31	22	38	35
5. Go into military service.	Fall	06	09	06	07	05	06
	Spring	09	07	07	07	05	07
6. Go into apprenticeship or on-the-job training.	Fall	06	09	06	06	09	11
	Spring	07	09	02	10	08	10
7. Take a job that requires additional training.	Fall	10	06	09	09	06	07
	Spring	07	08	10	12	05	05
8. Other.	Fall	12	08	04	10	06	07
	Spring	08	08	08	13	07	09
9. Undecided.	Fall	12	11	14	12	13	08
	Spring	14	12	15	12	08	12

Table 22

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 16

Question 16. Which of the following do you actually plan to do after leaving high school? (Mark only one.)	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Go to vocational or technical school.	Fall	06	08	03	06	05	07
	Spring	07	07	03	05	06	08
1. Go to business school (non-college).	Fall	07	08	09	12	07	05
	Spring	09	07	11	11	05	04
2. Go to nursing school (college or non-college).	Fall	07	05	06	05	06	04
	Spring	07	08	06	04	07	03
3. Go to junior or community college (2 years).	Fall	03	03	06	05	04	07
	Spring	03	04	04	02	07	09
4. Go to college or university (4 years).	Fall	26	29	29	21	37	33
	Spring	24	25	29	21	37	30
5. Go into military service.	Fall	07	08	06	07	04	05
	Spring	09	08	06	07	05	07
6. Go into apprenticeship or other on-the-job training.	Fall	06	06	05	06	08	10
	Spring	07	05	02	08	07	11
7. Take a job that requires no additional training.	Fall	10	08	06	11	07	06
	Spring	07	07	11	11	05	06
8. Other.	Fall	09	05	07	08	03	05
	Spring	06	05	08	10	05	05
9. Undecided.	Fall	18	18	23	21	18	19
	Spring	21	22	19	20	16	18

Question 20 which asked the student to consider his interests and abilities in his decision. In addition, there was very little variation in the percentage of students selecting the choice from fall to spring. The percentage of students stating at the time of spring testing, that they were "undecided" about what they actually planned to do after leaving high school ranged from 16 percent for the Patterson ninth grade students to 22 percent for the Woodward tenth grade students. In general, the percentage of students selecting "Undecided" was slightly higher on this question than on the previous three in this series. There was very little variation on any of the choices from fall to spring for any of the six groups on Question 16.

Discussion

Hypothesis 2A stated, "The students' educational and vocational plans and goals will change significantly as a result of the Career Exploration Program". The findings used to test Hypothesis 2A were drawn from two parallel series of four questions each. The first series, questions 11, 19, 21, and 23, pertained to the student's educational plans and goals for grades 11 and 12. The second series, questions 12, 16, 20, and 22, concerned the student's plans for himself after leaving high school. Both series of questions sought the student's responses in terms of his ability, his parents' wishes, his own desires and his actual plans.

Analysis of the data presented reveals that significant changes within groups from fall to spring were found for the Woodward and Patterson groups in all but one instance on the series of items pertaining to educational plans and goals for grades 11 and 12. On the most pertinent item of the series, "Which course of study do you plan to take in grades 11 and 12?", the Waite ninth grade group was the only one which did not show a significant change in response from fall to spring. In general, the direction of the change in responses to the above items from fall to spring tended to be toward a "general" curriculum for Woodward and Waite students and a "Vocational or technical" curriculum for Patterson students.

Analysis of the data pertaining to the four items related to post-high school educational and vocational plans and goals revealed no significant changes in responses within or between groups from fall to spring. The one choice receiving the highest percentage of response from all six groups in the fall and spring was, "Go to a college or university (4 years)". A higher percentage of Patterson students than students from Woodward or Waite selected this choice on all four items.

The investigators concluded that the students' educational plans and goals for grades 11 and 12 had changed significantly from fall to spring in five of the six groups. Since one of these groups with significant change (Waite tenth grade) was a control group, one must question if the change was a direct result of Career Exploration Programs. As was pointed out earlier, the pattern of curriculum selection for Woodward and Waite students was quite similar, with Patterson students deviating in the direction of a vocational or technical curriculum choice.

When considering educational and vocational plans beyond high school, however, no significant differences were found within or between groups. In light of these results, the investigators were forced to reject Hypothesis 2A.

It seems that many students, whether as a direct result of the CEP or not, changed their educational plans for the last two years of high school. What caused this change, the investigators are not in a position to determine. One could conjecture that it was the result of influence of significant others within or outside of each of the three schools involved.

Hypothesis 2B: That a greater percentage of students will have definite educational and vocational plans and goals as a result of the Career Exploration Program.

The purpose of Hypothesis 2B was to determine whether or not students comprising the six groups had more definite educational and vocational plans as a result of the Career Exploration Program. Questions on the CPS used to test the hypothesis focused on the individual's attitude toward school and jobs, the amount of thought he had given the need for an education in order to get along in the world, and whether he had made a decision concerning high school graduation and occupational choice. The questions on the CPS used to test Hypothesis 2B consisted of two series of three questions each. One series, questions 7, 9, and 14, dealt with the student's attitude toward school, his perceived need for an education, and whether or not he planned to graduate from high school. The second series, questions 4, 5, and 6, concerned the student's idea of what makes a job a "good job", the amount of thought he had given his choice of an occupation, and whether or not he was sure that his mind was made up regarding an occupation.

A change in response from fall to spring on these two series of items within each group provided the investigators with the necessary data to determine if the groups had made more definite educational and vocational plans during the time of the Career Exploration Program. By comparing the change in results from fall to spring among groups, it was possible to determine whether there was a significant change in responses between an experimental group and a control group or between one experimental group when compared to another experimental group.

Findings

The investigators assumed that an individual's attitude toward school was dependent upon how important he perceived an education to be in getting along in the world. Question 14, which asked, "About how much schooling do you think most young people need these days to get along well in the world?" was designed to gather data from the six longitudinal groups concerning their perception of educational needs. Table 23 presents the percentage of responses for the six longitudinal groups for the fall and spring testing. Although there were no significant differences within or between any of the groups when the change in responses from fall to spring for each group were compared, some interesting trends were apparent. Between 26 percent and 38 percent of the groups from Woodward and Waite stated in

Table 23

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 14

Question 14. About how much schooling do you think most young people need these days to get along well in the world? (Mark only one.)	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Elementary school.	Fall	01	00	00	01	00	00
	Spring	02	01	00	01	00	00
1. Some high school.	Fall	03	02	03	03	00	01
	Spring	06	03	04	03	01	01
2. High school diploma.	Fall	31	26	38	29	14	12
	Spring	34	26	36	31	14	11
3. High school diploma including vocational or tech. education	Fall	15	16	14	16	24	28
	Spring	17	17	15	17	27	29
4. High school diploma + business or technical school.	Fall	08	11	10	12	11	11
	Spring	09	09	10	13	10	13
5. Some college.	Fall	18	17	13	14	13	12
	Spring	15	18	13	16	11	13
6. Some college + business, vocational or tech. school.	Fall	03	05	06	06	07	11
	Spring	04	04	03	04	10	11
7. College degree.	Fall	12	10	06	09	14	15
	Spring	07	12	11	08	14	10
8. College degree + additional non-college training.	Fall	02	02	02	03	06	05
	Spring	03	04	01	01	05	04
9. College degree + graduate school	Fall	07	10	08	07	11	05
	Spring	04	06	07	06	07	07

the fall and spring that a "high school diploma" was enough schooling to get along well in the world. The choice receiving the highest percentage of response from the Patterson groups was "high school diploma including vocational and technical education", which was chosen by 24 percent to 29 percent of the students in the groups. In the spring, a total of 57 percent of the Patterson ninth grade students and 58 percent of the Patterson tenth grade students stated that additional training beyond high school was necessary, while between 41 percent and 53 percent of the groups from Woodward and Waite responded similarly. Changes in responses within each group from fall to spring were minimal.

One would expect that students perceiving education as being important for getting along in the world would have a positive attitude toward school. One could further expect that a Career Exploration Program would have a positive effect upon a student's attitude toward school. Question 9 of the CPS asked, "Which of the following phrases best describes your attitude toward school?". Table 24 presents the percentage of responses on this question for the six longitudinal groups for the fall and spring testing. "I like school a lot" or "I like school pretty well" was chosen by 64 percent to 80 percent of the students in the six groups on the fall testing. Between 16 percent and 27 percent of the students in each of the six groups in the fall responded, "I don't like or dislike school". At the time of the spring testing, the responses for "I like school a lot" and "I like school pretty well" ranged 50 percent for Waite tenth grade students to 74 percent for Patterson ninth grade students. The percentage of students stating, "I don't like or dislike school" increased slightly for most groups in the spring. In general, the ninth and tenth grade students from Patterson tended to express a more positive attitude toward school in the fall and spring than did the students from Woodward and Waite. All groups, however, tended to be less positive toward school in the spring than in the fall.

The F ratios and the pretest, posttest, and adjusted means for all groups on Question 9 are presented in Table 24A. The F ratios indicate that there were significant differences (.01 level) among the responses of both the ninth and tenth grade groups. Further analysis of the adjusted means shows that the Patterson ninth grade group was significantly higher (toward liking school a lot) than the Waite ninth grade group. Patterson tenth grade students were significantly higher (toward liking school a lot) than Woodward or Waite tenth grade students. Finally, Woodward tenth grade students were significantly higher (toward liking school a lot) than Waite tenth grade students.

Question 7, which asked "Do you plan to graduate from high school?" was the third question related to the student's educational plans. From the results obtained on Questions 14 and 9, one might expect that at least a majority of the students in the groups would plan to graduate from high school. From Table 25, one can see that the percentage of students stating in the fall that they "Definitely plan to graduate" ranged from 85 percent of the Woodward ninth grade group to 99 percent of the Patterson tenth grade group. The percentage of students from all groups at the time of spring testing stating that they "Definitely plan to graduate" decreased within each group when compared to the fall. Thi trend on the spring test

Table 24

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 9

Question 9. Which of the following phrases best describes your attitude toward school?	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. I like school a lot.	Fall	21	24	22	16	25	24
	Spring	19	17	16	11	23	17
1. I like school pretty well.	Fall	43	44	50	48	55	47
	Spring	37	38	45	39	51	52
2. I don't like or dislike school.	Fall	25	22	20	27	16	20
	Spring	28	30	23	30	19	20
3. I dislike school a little.	Fall	09	08	06	07	03	07
	Spring	08	07	10	13	05	08
4. I dislike school a lot.	Fall	02	02	01	02	01	02
	Spring	08	07	06	07	02	04

Table 24A

PRETEST, POSTTEST AND ADJUSTED MEANS FOR ALL GROUPS ON QUESTION 9

Question 9. Which of the following phrases best describes your attitude toward school?
0. I like school a lot; 1. I like school pretty well; 2. I don't like or dislike school.
3. I dislike school a little; 4. I dislike school a lot.

GROUPS	MEANS Pretest	Posttest	Adjusted	F
Ninth Grade				
Wood	1.2761	1.4793	1.4027	
Wt	1.1435	1.4545	1.4539	7.742**
Patt	0.9783	1.1087	1.2028[b]	
Tenth Grade				
Wood	1.2089	1.4648	1.4763[c]	
Wt	1.3188	1.6580	1.6067	11.292**
Patt	1.1803	1.2872	1.3150[a]	

a = Patterson significantly higher than Woodward or Waite.
b = Patterson significantly higher than Waite only.
c = Woodward significantly higher than Waite.
** = Significant at .01 level.

Table 25

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 7

Question 7. Do you plan to graduate from high school?	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Definitely plan to graduate.	Fall	85	92	91	89	97	99
	Spring	81	86	87	85	96	95
1. Probably will graduate.	Fall	10	04	06	07	03	01
	Spring	09	06	06	10	04	04
2. Undecided.	Fall	03	03	02	02	00	00
	Spring	06	04	05	03	00	01
3. Probably will not graduate.	Fall	01	01	01	01	00	00
	Spring	03	02	01	01	00	00
4. Definitely do not plan to graduate.	Fall	01	00	00	01	00	00
	Spring	02	01	01	01	00	01

results was similar to those observed on the spring results of Question 9 pertaining to the student's attitude toward school.

The F ratios and the pretest, posttest, and adjusted means for all groups on Question 7 are presented in Table 25A. The F ratios indicate that there were significant differences (.01 level) among the responses of both the ninth and tenth grade groups. Analysis of the adjusted means shows that the Patterson ninth grade group was significantly higher (in the direction of definitely planning to graduate) than the Woodward ninth grade group. Patterson tenth grade students were significantly higher (in the direction of definitely planning to graduate) than the Woodward or Waite tenth grade groups.

The second series of questions related to Hypothesis 2B were concerned with the students' vocational plans and goals. Question 5 of this series asked, "When you say that a job is a 'good job', what do you think is the one main thing that makes it a 'good job'?" Table 26 presents the percentage of responses on this question for the six longitudinal groups for the fall and spring testing. The choice receiving the highest percentage of responses from all groups in the fall was "The job has a good future". The percentage of students selecting this choice ranged from 25 percent for Woodward ninth and tenth grade students to 37 percent for Patterson ninth grade students. Other responses in the fall for all groups were fairly evenly distributed among: "The job pays well"; "The job is pleasant, safe, and easy"; "The job helps other people"; "The job requires high moral standards, honesty, and responsibility"; and "The job requires intelligence and ability". Approximately 10 percent to 15 percent of the students in each of the groups selected these responses. When one compares the responses from fall to spring within groups, the only significant changes (.01 level) were recorded by Woodward tenth grade students and by Patterson tenth grade students. The most apparent change within these two groups was the increase of 25 percent to 37 percent of Woodward tenth grade students and the 33 percent to 42 percent of Patterson tenth grade students in the choosing, "The job has a good future". There were no significant differences in the change of responses from fall to spring between any of the groups on Question 5.

Before one can place any credence on an individual's statement that his mind is made up concerning his choice of an occupation, the amount of thought that he has put into the decision must be considered. Question 4, which asked "In regard to your choice of an occupation, have you:" was designed to elicit this information from the students. Table 27 presents the percentage of responses on this question for the six longitudinal groups for the fall and spring testing. The higher percentage of responses in the fall tended to be clustered on two choices for all groups. The percentage of students replying "Given the matter a great deal of thought" ranged from 44 percent for Waite ninth grade students to 79 percent for Patterson tenth grade students. The percentage of students reporting in the fall that they had "Given the matter some thought", ranged from 20 percent for the Patterson tenth grade students to 45 percent for the Waite tenth grade students. The most apparent change within groups from fall to spring was that of the Patterson ninth grade students. The percentage of these students answering "Given the matter a great deal of thought" increased from 62 percent in the fall to 79 percent in the spring. Patterson students stating that they had "Given the matter some thought" decreased from 35 percent in the fall to 19

Table 25A

PRETEST, POSTTEST AND ADJUSTED MEANS FOR ALL GROUPS ON QUESTION 7

Question 7. Do you plan to graduate from high school?
0. Definitely plan to graduate; 1. Probably will graduate; 2. Undecided;
3. Probably will not graduate; 4. Definitely do not plan to graduate.

GROUPS	MEANS Pretest	Posttest	Adjusted	F
Ninth Grade				
Wood	0.2150	0.3432	0.3122	
Wt	0.1388	0.2249	0.2236	14.364**
Patt	0.0362	0.0507	0.0894[b]	
Tenth Grade				
Wood	0.1332	0.2637	0.2475	
Wt	0.1594	0.2406	0.2134	6.833**
Patt	0.0168	0.0734	0.1060[a]	

a = Patterson significantly higher than Woodward or Waite.
b = Patterson significantly higher than Woodward.
** = Significant at .01 level.

Table 26

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 5

Question 5. When you say that a job is a "good job", what do you think is the one main thing that makes it a "good job"?	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. The job gives a chance to be your own boss.	Fall	02	02	03	04	03	03
	Spring	04	05	05	03	04	02
1. The job pays well.	Fall	16	16	16	14	09	14
	Spring	20	10	16	15	08	09
2. The job is pleasant, safe, and easy.	Fall	11	12	11	10	06	09
	Spring	11	11	08	08	07	06
3. The job helps other people.	Fall	11	12	12	10	11	11
	Spring	11	10	10	11	11	11
4. The job has a good future.	Fall	25	25	28	28	37	33
	Spring	25	37	30	28	34	42
5. The preparation for the job requires much education, hard work, and money.	Fall	07	07	08	03	05	03
	Spring	06	05	07	04	05	05
6. The job provides steady work.	Fall	06	06	05	07	05	04
	Spring	05	03	05	08	06	06
7. Other people think the job is a "good job".	Fall	01	00	01	01	00	00
	Spring	01	00	01	01	00	00
8. The job requires high moral standards, honesty, and responsibility.	Fall	12	11	11	15	14	14
	Spring	10	10	10	14	13	10
9. The job requires intelligence and ability.	Fall	10	10	06	10	10	10
	Spring	08	08	07	08	11	08

a = Difference between the fall and spring results within this group significant at the .01 level.

Table 27

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 4

Question 4. In regard to your choice of an occupation, have you:	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Given the matter a great deal of thought.	Fall	48	57	44	54	62	79
	Spring	51	55	54	51	79	77
1. Given the matter some thought.	Fall	40	37	45	36	35	20
	Spring	37	34	36	38	19	22
2. Given the matter little thought.	Fall	11	06	10	09	03	02
	Spring	09	08	08	08	02	01
3. Given the matter no thought.	Fall	02	01	01	01	00	00
	Spring	03	02	01	03	00	00

percent in the spring. Spring responses for "Given the matter a great deal of thought" were higher for Patterson ninth and tenth grade students than for students at Woodward or Waite. When comparing the changes within groups from fall to spring, the greatest percentage of change was attained by Patterson ninth grade students. The students in this group showed an increase of 18 percent to 39 percent from fall to spring for "Sure your mind is made up" and a decrease of 28 percent to 12 percent over the same period for "Not sure that your mind is made up". Patterson tenth grade students in the fall and spring and Patterson ninth grade students in the spring tended to be more sure than students from Woodward and Waite that their minds were made up regarding a choice of an occupation.

The F ratios and the pretest, posttest, and adjusted means for all groups on Question 4 are presented in Table 27A. The F ratios indicate that there were significant differences (.01 level) among the responses of both the ninth and tenth grade groups. Analysis of the adjusted means show that the Patterson students were significantly higher (toward having given the matter of an occupational choice more thought) than Woodward or Waite students.

Question 6, which asked "In regard to your choice of an occupation, are you:" was concerned with whether or not the student believed his mind to be made up in regard to his occupational choice. If a student's mind was set prior to the Career Exploration Program, one would expect him to be somewhat closer to the experiences provided by the program. On the other hand, one could expect an increase in the percentage of students in the experimental schools in the spring stating that their mind is made up, or at least they think their mind is made up. Table 28 presents the percentage of responses on this question for the six longitudinal groups for the fall and spring testing. The choice receiving the highest percentage of responses for most groups in the fall was "Not sure, but think your mind is made up". The percentage of response for this choice in the fall ranged from 33 percent for Woodward ninth grade students to 44 percent for the Patterson ninth grade students. Two other choices, "Sure your mind is made up" and "Not sure your mind is made up", was chosen in the fall by approximately 25 percent of the students.

The F ratios and the pretest, posttest, and adjusted means for all groups on Question 6 are presented in Table 28A. The F ratios indicate that there were significant differences (.01 level) among the responses of both the ninth and tenth grade groups. Analysis of the adjusted means show the Patterson students were significantly higher (toward being sure that their minds were made up regarding occupational choice) than Woodward or Waite students.

Discussion

Hypothesis 2B stated, "That a greater percentage of students will have definite educational and vocational plans and goals as a result of the Career Exploration Program". The findings used to test Hypothesis 2B were drawn from two series of three questions each. Questions 7, 9, and 14 dealt with the student's attitude toward school, his perceived need for an education, and whether or not he planned to graduate from high school. Although no significant differences were found among the groups as to how

Table 27A

PRETEST, POSTTEST AND ADJUSTED MEANS FOR ALL GROUPS ON QUESTION 4

Question 4. In regard to your choice of an occupation, have you:
0. Given the matter a great deal of thought; 1. Given the matter some thought;
2. Given the matter little thought; 3. Given the matter no thought

GROUPS	MEANS			F
	Pretest	Posttest	Adjusted	
Ninth Grade				
Wood	0.6627	0.6410	0.6113	
Wt	0.6746	0.5694	0.5356	31.550**
Patt	0.4203	0.2319	0.2854[a]	
Tenth Grade				
Wood	0.5065	0.5640	0.5265	
Wt	0.5797	0.6290	0.5604	20.152**
Patt	0.2306	0.2369	0.3166[a]	

a = Patterson significantly higher than Woodward or Waite.
** = Significant at .01 level.

Table 28

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 6

Question 6. In regard to your choice of an occupation, are you:	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Sure your mind is made up.	Fall	24	27	26	27	18	44
	Spring	24	26	30	23	39	37
1. Not sure, but think your mind is made up.	Fall	33	38	36	40	44	41
	Spring	36	37	37	38	43	43
2. Not sure that your mind is made up.	Fall	26	21	28	22	28	12
	Spring	27	25	26	27	12	15
3. Sure your mind is not made up.	Fall	17	14	10	11	10	03
	Spring	13	12	08	13	05	05

Table 28A

PRETEST, POSTTEST AND ADJUSTED MEANS FOR ALL GROUPS ON QUESTION 6

Question 6. In regard to your choice of an occupation, are you:
0. Sure your mind is made up; 1. Not sure, but think your mind is made up;
2. Not sure that your mind is made up; 3. Sure your mind is not made up.

GROUPS	MEANS			F
	Pretest	Posttest	Adjusted	
Ninth Grade				
Wood	1.3590	1.3077	1.2922	
Wt	1.2201	1.1196	1.1494	34.276**
Patt	1.2995	0.8213	0.8252[a]	
Tenth Grade				
Wood	1.2141	1.2245	1.1368	
Wt	1.1710	1.2899	1.2213	8.249**
Patt	0.7484	0.8679	0.9880[a]	

a = Patterson significantly higher than Woodward or Waite.

** = Significant at .01 level.

much schooling was thought to be necessary to get along well in the world, differences did exist in the areas of attitude toward school and plans to graduate from high school. Patterson ninth grade students tended to have a more positive attitude toward school than did Waite ninth grade students. Patterson tenth grade students tended to be more positive toward school than Woodward or Waite students, while Woodward tenth grade students were more positive than Waite tenth grade students. All groups, however, tended to be less positive in their attitude toward school in the spring than in the fall. Patterson ninth grade students were more definite in the spring that they planned to graduate from high school than Woodward ninth grade students. Patterson tenth grade students were more definite in their plans to graduate from high school than were Woodward and Waite tenth grade students.

Questions 4, 5, and 6 were concerned with the student's idea of what makes a job a "good job", the amount of thought he had given his choice of an occupation, and whether or not he was sure that his mind was made up regarding his occupational choice. Although there were significant differences within Patterson and Woodward tenth grade groups from fall to spring on the question of what makes a job a "good job", there were no significant differences between any of the groups in the change of responses from fall to spring on the same question.

The data pertaining to the amount of thought given to the matter of occupational choice was somewhat more conclusive in establishing differences between groups. Patterson students were significantly higher (toward having given the matter of an occupational choice more thought) than Woodward and Waite students.

Finally, a significant difference was found between Patterson students and students from Woodward and Waite in the area of stated commitment to occupational choice. Patterson students were more definite that their minds were made up in regard to occupational choice.

Examination of the findings related to Hypothesis 2B showed that the Patterson students were more definite in their plans to graduate from high school and in regard to their occupational choice than were students from Woodward and Waite. From the results presented above, it would seem that the Patterson students did experience significant changes in their educational and vocational plans and goals as a result of the Career Exploration Program. These results could also be attributed to the fact that Patterson is a vocational school and, therefore, the students are more highly motivated because of expressed interest in the occupations for which they are training. Differences between Woodward and Waite students in the area of setting definite educational and vocational plans and goals were minimal. The Career Exploration Program at Woodward had little apparent effect in helping the students establish definite educational and vocational plans and goals when compared to the Waite students. The fact that the program was in its first year of operation at Woodward may have contributed to these findings.

CHAPTER IV

SELF-CONCEPT

Objective 3: To help the student develop a more positive self-image of himself as a person and as a potential worker.

Hypothesis 3A: That students will have a more positive global self-image as a result of the Career Exploration Program.

Instrumentation

In order to measure the global self-concept of students, the Tennessee Self-Concept Scale was given to all students. The scale format was revised slightly with the permission of the authors to facilitate students taking the scale and machine scoring of it. No modification of the items or of their sequence was made, however. Students respond to each of the 100 items on the Tennessee Self-Concept Scale on a 5 point scale from completely true to completely false. Student scores on the following nine scales were analyzed by the investigators: Self-Esteem (Total P Score), Identity (Row 1 P Score), Self-Satisfaction (Row 2 P Score), Behavior (Row 3 P Score), Physical Self (Column A), Moral-Ethical Self (Column B), Personal Self (Column C), Family Self (Column D), and Social Self (Column E).

Findings

An analysis of covariance was done comparing the change in the pre and post test scores of students in the ninth and tenth grades at the three schools on each of the 9 scales (Table 29). Scores for all of the ninth grade students were almost identical, and the differences did not approach statistical significance.

There were significant differences in change on two scales for tenth grade students, however. On the first scale, "Identity", Patterson tenth grade students changed significantly more than Woodward tenth grade students. The Manual for the Tennessee Self Concept Scale describes the "Identity" scale as those items that describe "what I am", the person's basic identity-what he is as he sees himself morally, physically, socially, etc. Thus, Patterson tenth grade students tended to change toward seeing themselves significantly more positively than Woodward tenth grade students.

On the second scale, "Behavior", Waite tenth grade students scores changed significantly more than Patterson tenth grade students. The Manual describes the "Behavior Scale" as indicating "this is what I do or this is the way I act". This is the individual's perception of his behavior. Waite tenth grade students see their behavior in a significantly more positive vein than Patterson tenth grade students.

Table 29

PRETEST, POSTTEST AND ADJUSTED MEANS FOR ALL GROUPS HAVING A SIGNIFICANT DIFFERENCE ON THE TENNESSEE SELF-CONCEPT SCALE

GROUPS	MEANS			F
	Pretest	Posttest	Adjusted	
Scale: Identity - (Row 1)				
Tenth Grade				
Wood	90.6017	89.5515	89.4337	
Wt	89.8797	89.7941	89.9289	4.010*
Patt	90.3137	90.3916	90.3745[a]	
Scale: Behavior - (Row 3)				
Tenth Grade				
Wood	85.8663	86.9331	86.9630	
Wt	86.0642	87.6952	87.6615[b]	4.092*
Patt	85.9474	86.6905	86.6944	

a = Patterson significantly higher than Woodward
b = Waite significantly higher than Patterson
* = Significant at .05 level

Discussion

In general, the very minute differences in self-concept scores between all the groups both at the beginning and end of the program and the very slight changes in scores from pre to post test (the mean score on the majority of scales for each group increased slightly from pre to post test) suggest that the Career Exploration Program had little influence upon how students saw themselves. Since all ninth grade students were starting a new school program for the first time, one would have expected changes at that level if either Career Exploration Program had a significant impact upon them. Perhaps students in the CEP either did not get success experiences with which to build their self-concept, or they were unable to generalize the success experiences of a vocational nature to the more broad aspects of self.

Even at the tenth grade level, where two significant differences did appear, there was not even an indication of a trend in favor of any one school, since an experimental school group excelled on one of the two scales and a control school group excelled on the other scale where there was a significant difference.

One is forced to conclude that the Career Exploration Program had little, if any, impact upon the "global" self-concept of the participants when analyzed by grade level groups.

Hypothesis 3B: That students will have a more positive self-image of themselves as potential workers as a result of the Career Exploration Program.

Instrumentation

Items 8, 13, and 15 on the Career Plans Survey were used to assess vocational self-concept. These items dealt with the student's perception of his ability as compared with others now working at the occupation, his chances for success as compared to his friends, and his chances for success as compared to those working at the occupation now, respectively. He was asked to respond to each of these items by rating himself on a 5 point scale from very much above average to very much below average.

Findings

An analysis of covariance was done comparing the pre and post test scores by grade level on each item. Tables 30 through 32A show the percentage of students in each group making each choice and the mean score of each group for each question, respecpectively.

Significant differences were found within groups on all three questions. On the first question (Question 8, Tables 30 and 30A) asking students to rate their ability for the job they were considering, Patterson students at both grades 9 and 10 changed significantly more than the comparable groups at Waite.

Table 30

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 8

Question 8. As compared with others now working at the occupation you are considering, do you think your ability is:	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Very much above average.	Fall	08	07	08	08	07	06
	Spring	11	09	11	09	08	08
1. A little above average.	Fall	28	31	28	29	33	34
	Spring	26	30	27	28	38	41
2. Average	Fall	57	54	57	57	49	53
	Spring	54	54	53	55	49	46
3. A little below average.	Fall	06	05	06	06	09	06
	Spring	06	05	06	05	04	05
4. Very much below average.	Fall	01	02	01	01	01	01
	Spring	02	02	03	03	00	01

Table 30A

PRETEST, POSTTEST AND ADJUSTED MEANS FOR ALL GROUPS ON QUESTION 8

Question 8. Compared with others now working at the occupation you are considering, do you think your ability is:

0. Very much above average; 1. A little above average; 2. Average;
3. A little below average; 4. Very much below average.

GROUPS	MEANS Pretest	Posttest	Adjusted	F
Ninth Grade				
Wood	1.6292	1.6193	1.6205	
Wt	1.6411	1.6268	**1.6227**	3.033*
Patt	1.6304	1.5097	1.5103[b]	
Tenth Grade	1.6214	1.5953	1.5974	
Wood	1.6406	1.6522	1.6465	4.189*
Wt	1.6205	1.5010	1.5035[a]	
Patt				

a = Patterson significantly higher than Waite.
b = Patterson significantly higher than Waite and Woodward.
* = Significant at .05 level.

When asked to evaluate their chances for being successful at an occupation (Tables 31 and 31A), Patterson students in the ninth grade changed in the desired direction significantly more than did Woodward ninth grade students. At the tenth grade level, Patterson students also changed in the desired direction significantly more than students at Waite, but not Woodward.

Finally, Patterson ninth grade students changed significantly more positively in rating their chances for getting ahead in the occupation of their choice than students at Waite and Woodward (Tables 32 and 32A). There were no significant differences between groups at the tenth grade level.

Discussion

It appears that, in most instances, Patterson students had a significantly more positive outlook upon their abilities and chances for success in their chosen field than did students at Waite and, in one instance, Woodward. Since Patterson students were in a program designed to provide them with concrete experiences directly related to the careers they were considering, this finding confirms the philosophy of the Career Exploration Program; i.e. that a student will see himself in a more positive light when he has opportunities for success experiences in a field of interest.

A second possible explanation of this finding may be that, since Patterson is a selective school, students have been indoctrinated by their faculty to consider themselves as "above average" and having greater opportunity than many non-college oriented students in the general high school. In addition, Patterson students had success experiences in a specific field of interest. Apparently, in this instance, a Career Exploration Program in a general high school was unable to provide this same kind of support.

Table 31

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 13

Question 13. Compared with your friends, do you think your chances for being successful in the occupation of your choice are:	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Very much above average.	Fall	19	26	17	18	18	16
	Spring	21	24	20	16	21	19
1. A little above average.	Fall	33	31	32	33	36	39
	Spring	29	28	33	35	42	42
2. Average.	Fall	44	39	48	45	44	42
	Spring	45	41	41	44	35	37
3. A little below average.	Fall	04	03	03	03	02	03
	Spring	03	04	05	03	02	02
4. Very much below average.	Fall	00	01	00	01	00	00
	Spring	02	01	02	03	00	00

Table 31A

PRETEST, POSTTEST AND ADJUSTED MEANS FOR ALL GROUPS ON QUESTION 13

Question 13. Compared with your friends, do you think your chances of being successful in the occupation of your choice are:
0. Very much above average; 1. A little above average; 2. Average;
3. A little below average; 4. Very much below average.

GROUPS	MEANS			F
	Pretest	Posttest	Adjusted	
Ninth Grade				
Wood	1.3471	1.3708	1.3660	
Wt	1.3828	1.3636	1.3415	5.373**
Patt	1.3019	1.1836	1.2007[a]	
Tenth Grade				
Wood	1.2272	1.2898	1.3174	
Wt	1.3391	1.4087	1.3905	4.832**
Patt	1.3166	1.2285	1.2195[b]	

a = Patterson significantly higher than Woodward
b = Patterson significantly higher than Waite
** = Significant at .01 level

Table 32

PRETEST AND POSTTEST PERCENTAGES OF RESPONSES FOR ALL GROUPS FOR QUESTION 15

Question 15. As compared with others now working at the occupation you are considering, do you think your chances for getting ahead are:	Testing Date	PERCENTAGES					
		Wood		Wt		Patt	
		Grade 9 N=506	Grade 10 N=382	Grade 9 N=206	Grade 10 N=344	Grade 9 N=414	Grade 10 N=476
0. Very much above average.	Fall	14	15	07	11	13	13
	Spring	15	14	12	10	15	13
1. A little above average.	Fall	28	29	31	29	31	39
	Spring	29	27	32	31	36	41
2. Average.	Fall	52	50	55	55	50	46
	Spring	48	49	50	51	47	42
3. A little below average.	Fall	05	05	06	03	05	02
	Spring	06	05	05	06	02	05
4. Very much below average.	Fall	00	01	01	01	00	00
	Spring	02	03	02	01	00	00

Table 32A

PRETEST, POSTTEST AND ADJUSTED MEANS FOR ALL GROUPS ON QUESTION 15

Question 15. Compared with others now working at the occupation you are considering, do you think your chances for getting ahead are:
0. Very much above average; 1. A little above average; 2. Average;
3. A little below average; 4. Very much below average

GROUPS	MEANS			F
	Pretest	Posttest	Adjusted	
Ninth Grade				
Wood	1.4872	1.5049	1.5119	
Wt	1.6316	1.5502	1.5127	3.851*
Patt	1.4758	1.3647	1.3752[a]	

a = Patterson significantly higher than Waite and Woodward
* = Significant at .05 level

CHAPTER V

PARENT OPINION

Objective 4: To provide a program that will be considered worthwhile by parents of students in the Career Exploration Program.

Hypothesis 4A: That attitudes toward the program expressed by parents will be generally favorable.

In order to test Hypothesis 4A, a twelve item questionnaire was developed by the investigators for distribution to the parents of Patterson and Woodward students enrolled in the Career Exploration Program during the 1970-71 school year. The Parents Survey included items designed to collect data pertaining to the source and degree of parent knowledge of the CEP, parent reaction to the program, and parent perception of the effect of the program on their child.

The Parent Surveys were distributed to the students at the experimental school in the spring with directions to deliver it to a parent or guardian. Parents were asked to react to the items on the survey, seal it in the envelope provided, and return it to the school. Parents were assured that their responses would not be revealed to the personnel at the school.

Four hundred fifty-one (50 percent) of the approximately 900 Parent Surveys sent to the Patterson parents were returned. Two hundred seventy-five (31 percent) of the 900 Parent Surveys sent to the Woodward parents were returned. It is interesting to note that returns from parents of girls outnumbered returns from parents of boys at Woodward by 202 to 73.

Findings

Items 1 and 2 of the Parent Survey sought to determine how much the parents thought they knew about the Career Exploration Program in their child's school, and to what source the parents attributed their knowledge of the program. From Table 33, one can see that fewer than 10 percent of the responding parents from Patterson or Woodward believed that they knew "a lot" about the CEP in their child's school, while the majority of parents from each school stated that they knew "some" or "a little" about the programs. As can be seen from Table 34, "from my child" was selected as the source of information about the CEP by 75 percent of the Patterson parents and 85 percent of the Woodward parents.

Table 33

REPORTED KNOWLEDGE OF THE CAREER EXPLORATION PROGRAM
OF NINTH AND TENTH GRADE PARENTS AT PATTERSON AND WOODWARD

PARENT RESPONSES	PATT N=451	WOOD N=275
	Percent	Percent
A. I know a lot....	08	10
B. I know some....	48	42
C. I know a little....	25	38
D. I know nothing....	17	09
E. No response....	02	01

Table 34

PARENTS REPORTED SOURCE OF KNOWLEDGE OF THE
CAREER EXPLORATION PROGRAM AT PATTERSON AND WOODWARD

SOURCE OF KNOWLEDGE	PATT N=451	WOOD N=275
	Percent	Percent
A. From my child.	75	85
B. From oneone at the school.	03	02
C. From someone in the community.	02	01
D. From my job.	01	01
E. Other.	01	01
F. No response.	19	10

A student's reaction to an innovation in a school's curriculum is often a reflection of how a parent feels about the program. When asked to evaluate the opportunity for his child to participate in the CEP, the majority of parents responding from both schools were favorable. Data presented in Table 35 shows that 91 percent of the Patterson parents and 82 percent of the Woodward parents stated that the CEP in their child's school was an "excellent" or a "good" experience for their child.

Table 36 presents the results for items 4 through 11 of the Parent Survey. These items emphasized the learning opportunities, child's attitude toward school and other benefits that may have resulted from the CEP. From the data presented in Table 36, the following statements can be made concerning the parents' reactions to the items.

--82 percent of the Patterson parents and 74 percent of the Woodward parents "strongly agreed" or "agreed" that "this year in school my child has learned about what jobs are available to him".

--78 percent of the Patterson parents and 61 percent of the Woodward parents "strongly disagreed" or "disagreed" that "this year in school my child has not learned about what training is required for different jobs".

--58 percent of the Patterson parents and 63 percent of the Woodward parents "strongly agreed" or "agreed" that "this year in school my child has learned what different jobs pay".

--89 percent of the Patterson parents and 79 percent of the Woodward parents "strongly disagreed" or "disagreed" that "this year in school my child has learned less about jobs than in past years".

--72 percent of the Patterson parents and 43 percent of the Woodward parents "strongly agreed" or "agreed" that "my child likes school better this year because he has had an opportunity to learn about jobs".

--73 percent of the Patterson parents and 64 percent of the Woodward parents "strongly disagreed" or "disagreed" that "my child had discussed with me less this year than in past years what he wants to do after completing his high school education".

--86 percent of the Patterson parents and 60 percent of the Woodward parents "strongly agreed" or "agreed" that "because of studying about jobs in school this year, my child has a better idea of what jobs he would like to do after completing his high school education".

--79 percent of the Patterson parents and 47 percent of the Woodward parents "strongly agreed" or "agreed" that "because of studying about jobs in school this year, my child has a better idea of what jobs he can do well".

Table 35

PARENT REACTION TO THE PARTICIPATION OF HIS CHILD IN THE CAREER EXPLORATION PROGRAM AT PATTERSON AND WOODWARD

	PARENT REACTION	PATT N=451	WOOD N=275
		Percent	Percent
A.	An excellent experience.	35	19
B.	A good experience.	56	63
C.	A good experience, but could have learned as much without the program.	03	08
D.	A poor experience.	00	01
E.	A complete waste of my child's time.	00	05
F.	No response.	06	04

Table 36

REACTIONS OF PARENTS OF PATTERSON AND WOODWARD STUDENTS TO ITEMS ON THE PARENT SURVEY
(Data Reported as Percentages)

ITEM	SCHOOL	AGREE STRONGLY	AGREE	NEITHER AGREE NOR DISAGREE	DISAGREE	DISAGREE STRONGLY	NO RESPONSE
4. This year in school my child has learned about what jobs are available to him.	Patt	17	65	08	07	01	02
	Wood	13	61	17	05	01	01
5. This year in school my child has not learned about what training is required for different jobs.	Patt	02	10	08	57	21	03
	Wood	03	17	17	48	13	01
6. This year in school my child has learned what different jobs pay.	Patt	05	53	21	16	03	02
	Wood	08	55	21	12	02	02
7. This year in school my child has learned less about jobs than in past years.	Patt	01	02	05	50	39	02
	Wood	02	04	12	57	22	02
8. My child likes school better this year because he has had an opportunity to learn about jobs.	Patt	20	52	20	04	01	03
	Wood	06	37	35	15	07	00
9. My child had discussed with me less this year than in past years what he wants to do after completing his high school education.	Patt	03	07	14	50	23	03
	Wood	02	11	23	44	20	01
10. Because of studying about jobs in school this year, my child has a better idea of what jobs he would like to do after completing his high school education.	Patt	27	59	09	03	01	02
	Wood	12	48	21	14	04	01
11. Because of studying about jobs in school this year, my child has a better idea of what jobs he can do well.	Patt	20	59	15	03	01	02
	Wood	07	40	34	16	03	01

Item 12 of the Parent Survey solicited "comments" from parents concerning the Career Exploration Program. Although not all parent statements pertained to the CEP, the following were considered by the investigators to be representative of the comments made by the parents about the program.

Comments from Patterson Parents Regarding the CEP.

-"We have received no information about the Career Exploration Program."

-"My child has learned about future jobs from her pre-vocational courses but to her knowledge and mine, she has not participated in any Career Exploration Program."

-"I feel that this program is a very good idea; it gives the student a chance to study different jobs so that they can decide what they would like to do before they get ready to graduate."

-"I think this Exploration Program is a very important part of my child's education. All schools should participate in this type of program."

-"The program sounds very good and should prove helpful to a student in deciding on a career."

-"I believe this program is very helpful to students who are undecided about what vocation they would like to follow. I think it should be continued and expanded in a way to prepare students for actual employment conditions and experiences."

-"I strongly agree that this program is beautiful, and I do hope that the children are placed with all fairness on the job that they are qualified for."

-"I feel that this survey should be filled out by my child because she knows better what she has learned than I do. We talk about her progress, but not her job choice."

-"My son seems to know nothing about this new program."

-"I would recommend this program to any student who wants to know more about careers."

-"Keep parents better informed through seminars."

-"...liked trying different programs; ...liked doing actual work."

-"Enough is not being done to show the students what jobs available are really like."

-"Never heard of CEP."

-"For a child to know about a job, he must have the opportunity to work first hand, on the job, and with people. How can we as parents learn more about this program?"

Comments from Woodward Parents Regarding the CEP.

-"Never heard of the program."

-"More information should be given concerning the courses that are needed for a specific occupation."

-"Good program. Gives opportunity for different fields."

-"I feel that this program should be voluntary for students who wish to participate. My daughter gained very little from it because she is quite sure what her profession is going to be and nothing of what she has learned through this program will be of value to her."

-"Gives students a better idea of what they would like to do and what is best for them."

-"Program not extensive enough. Bored with the classroom portion."

-"Visit more places."

-"Waste of time."

-"Good program and continue."

-"More information would be helpful to parents."

-"Better planning would help."

-"Boring and dull to my daughter."

-"There was too much time wasted between speakers."

-"Too long to just sit and listen."

-"Start with the 7th-8th grades."

The preceding statements tend to support the data obtained from the objective portion of the Parent Survey. In general, the Patterson parents were more positive toward the concept and results of the CEP.

Discussion

The percentage of returns of the Parent Survey from the parents of students in the programs were low; 50 percent for Patterson and 31 percent for Woodward. Realizing the limitation of such a small return, the investigators suggest caution in generalizing from the findings. The investigators believe, however, that the results of the Parent Survey do provide some indication of parent reactions to the Career Exploration Program and its effect upon the children of those who responded.

When considering the parent responses concerning the amount of knowledge they reported having about the CEP and the source of this knowledge, one

must question the communications effort of the schools in regard to their programs. The fact that fewer than 10 percent of the parents stated that they know "a lot" was made more alarming by the comments in item 12. Several parents at both schools claimed that neither they nor their child knew of the Career Exploration Program. The findings of the Survey suggest that the only contact that most parents had with the programs at either school was through their child. Only 3 percent of the Patterson parents and 2 percent of the Woodward parents stated that they had learned much about the CEP from someone at school. It seems that for a program of this type to be successful, parents should be informed and involved.

The parents' reactions to having their child participate in the CEP tended to be positive. This is surprising when one considers that the majority of the parents were not very familiar with the programs. It appears that the parents were implying by their responses to the Survey that, "even though we do not know what it is all about, it seems that the school is trying to do something positive in preparing my child for life". Granted, not all parents felt this way, but in general, this seemed to be the mood.

Patterson parents tended to be more positive than Woodward parents in regard to the effect of the CEP on their child's attitude toward school, learning opportunities and other benefits resulting from the program. A majority of the Patterson parents answered items 4 through 11 in a positive manner. A majority of Woodward parents were positive on all but items 8 and 11. These two items were concerned with the child liking school better because of the opportunity to learn about jobs, and that the child having a better idea of what job he could do well.

In conclusion, the parents of the Patterson and Woodward students enrolled in the Career Exploration Program expressed attitudes toward the programs that were basically positive. Examination of the findings and the personal comments made by the parents, however, caused the investigators to question many of the results because of the parents' reported lack of knowledge about the programs. It appeared that many of the parents who took the time to respond to the Parent Survey answered the questions on the basis of the information provided in the opening paragraph of the Survey or on the basis of some information provided by their child. Because of this apparent lack in depth information of the programs, the investigators must caution against any generalization of the findings. The findings definitely indicate the need for greater parent-school communication regarding the purpose and goals of the Career Exploration Program.

CHAPTER VI

CONCLUSIONS

In writing conclusions for a study such as this, conclusions must be drawn from the available data. This will be done here. However, as with most studies, the investigators recognize some weaknesses in the study that should be kept in mind when interpreting the data.

First, no attempt was made to relate change in particular students with the specific activities that they participated in. For example, there was no differentiation made in the analysis of change in the OVIS scale scores between students who had exploratory experiences in machine work versus those who did not.

Second, no attempt was made to identify students with specific weaknesses to see if the program helped them to strengthen an area of need. For example, students with low self-esteem in the fall were not labeled and studied separately to see if the program helped them overcome this area of weakness.

Third, it may often be fallacious to say a program has had no effect based upon pre and post test analysis of group data. In reality, what may have happened is that the program has had an effect upon all students, but the positive effects upon some students and the negative effects upon others cancel each other. Without closer study of individual students through test data, interviews and case studies, this weakness will remain in future evaluation.

It is important for the reader to keep these limitations in mind when interpreting the conclusions that follow.

Interests

(1) In general, the Career Exploration Program had very little effect upon the general areas of student interest as expressed as change in scale score on the OVIS. There were very few differences between control and experimental schools in this respect. When experimental schools were compared with each other; however, there were no differences between Patterson and Woodward at the ninth grade level. At the tenth grade level Patterson students changed on slightly more scales than Woodward students. While little change was noted when students in the same grade level from any of the schools were compared, there were many more changes when students in the same school were compared by grade level. Ninth grade students had a tendency to change scale scores a great deal more on the OVIS than tenth grade students at both Woodward and Patterson.

The fact that there were few differences between control and experimental schools indicates that the Career Exploration Program had little impact upon changing the general areas of interest of these students involved in the Career Exploration Program. Since the Career Exploration Program at Patterson was an in-depth study of four career areas at the ninth grade level and one area at the tenth grade level, one can understand why the interests of Patterson students changed little as a result of the program-i.e. they had little exposure in school to new career areas-that was not the purpose of the Career Exploration Program. It would have been helpful to have identified the occupational areas each youngster studied and to see if there was significant change in interests in the area studied. This was a weakness in the research design which should be corrected in future evaluations.

At Woodward, where the program the first year served as more of an "orientation" program than as one for "in-depth" study of relatively few occupations, one might have expected greater change in general areas of interest than at Patterson. One possible explanation of why this change did not occur is that the exposure of Woodward students to new career areas was so brief in any one career area that students may have had only an opportunity to become "curious", but not truly interested. Interests do not just "happen"-they must be developed. In addition, in the Woodward program, students had only a one week exposure each semester. This may have had the effect of having students feel as if they were "starting all over again" each time with the prior exposure forgotten.

The fact that grade level, rather than school program seemed most important in determining the propensity to change interests confirms the idea that the formation and stability of interests is "age-related". Our evidence on this point would be stronger if we had also compared the ninth and tenth grade in the control schools to see if greater change also took place at the ninth grade in the control schools. Based upon the evidence which we have, however, two explanations seem most feasible. First, as previously stated, it may be that stability of interests is developmental and that interests do not stabilize prior to a certain age nor change much after that point in a person's life regardless of the exposure which the person had to the world of work. An alternative explanation may be that the ninth grade programs in both Patterson and Woodward tended to provide students with much greater breadth of exposure than the tenth grade programs, thus causing greater change at the ninth grade level. We know this to be true of the Patterson program, but we are unaware of any differences in the experiences of ninth and tenth grade students at Woodward. A program in which students had depth of exposure in several areas both in the ninth and tenth grade would have to be evaluated to determine if student interest patterns can be appreciably modified by school programs after grade nine. Finally, identifying the specific careers studied with specific changes in interest area is needed to test the true impact of the CEP upon the nature of student interests.

(2) The student's consistency in stating a like or dislike for all activities related to a particular career area as expressed by the scale clarity score on the OVIS was unrelated to grade level. When schools were compared, there was little, if any, significant difference between Woodward and the control school. On the other hand, the scale clarity scores of Patterson students in both grades 9 and 10 tended to change less from fall to spring than those of students in the other two schools. However, the number of students from Patterson at both grade levels who had "I" (inconsistent) scale clarity scores in the spring was significantly greater than either Woodward or Waite.

The fact that there tended to be less change in the consistency of a student's expressed liking or disliking for occupations related to a particular career area by Patterson students indicates that Patterson students may have had a pretty good idea of what was involved in various careers at the beginning of the program and thus changed little. The most interesting finding to the investigators is the final finding relating to scale clarity scores-i.e. that when Patterson student's scale clarity scores did change, there was a slight tendency for them to become more "inconsistent". Initially, one might interpret this as a negative finding, but we feel the contrary is true. To be "inconsistent" in liking or disliking activities relating to a particular career can indicate an in-depth knowledge of a career to the point that one can clearly differentiate between desirable and undesirable activities associated with the career. To like or dislike all activities associated with an occupation to the same degree may indicate a real lack of knowledge of what many of the activities related to a particular job entail. It is rare that a person actually working at a particular job likes or dislikes all activities associated with his job to the same degree. It is more common for persons to strongly prefer some activities over others. Thus, the investigators believe that this improved ability on the part of Patterson students in the spring to differentiate between liked and disliked activities associated with occupational areas indicated one measure of success for the Patterson program.

(3) In the area of consistency of expressed interests and of rank of inventoried interests, Patterson tenth graders were more consistent from fall to spring than Patterson ninth grade students and Waite tenth grade students in every instance. In addition, Patterson tenth grade students were also more consistent from fall to spring than Woodward tenth grade students in the rank of their inventoried interests. Since Patterson tenth graders had had an in-depth exposure to four career areas as ninth graders and were currently working in a career area for the whole year which was selected on the basis of this ninth grade experience, it is not surprising that they were most consistent. They had had the least stimulation to change. It is interesting to note the change in Patterson ninth grade students compared to Patterson tenth grade students. This change shows that the Career Exploration Program in the ninth grade is having the desired effect of allowing students to test themselves against the training and work requirements of several career areas and to modify their vocational plans accordingly. That this ninth grade experience leads to more satisfaction as tenth graders is shown by the fact that the Patterson tenth graders had had such an exploratory experience as ninth graders and were the most stable group

as tenth graders. On the other hand, if continued stimulation to re-examine interest during the sophomore year and to modify them accordingly was a goal of the CEP the Patterson tenth grade program was ineffective and the Patterson ninth grade program was more effective than the tenth grade program. There was no evidence, however, to suggest that the Woodward program at either the ninth or tenth grade level was any more effective than the control school in helping students change interests as a result of new experiences during the year. It would be interesting to know whether or not this stability on the part of Patterson tenth graders would have happened if, instead of studying one area as tenth graders, they had had "hands-on" experiences in four different areas again as sophomores.

(4) The inventoried rank of the first choice expressed interest of Patterson tenth grade students changed more in the desired direction than Patterson ninth grade and Woodward tenth grade students. The assumption was made that a student in the Career Exploration Program should learn to associate his first choice expressed interest with the activities demanded in it, and that this would be reflected by a greater consistency between that career area expressed as first choice and the relative rank of that career area among all those for which he rated the related activities. Again the Patterson tenth grade students demonstrated some superiority, but they did not significantly exceed the control school. They did, however, do significantly better than the Patterson ninth grade and Woodward tenth grade students. Since they failed to do better than the control school, one must question whether the differences which did appear in this area can be attributed to the Patterson tenth grade Career Exploration Program.

Career Plans Survey

(1) In general, Patterson students felt better informed to make a career choice than students from the other schools. This finding is understandable, since the Patterson students were getting actual experience in training in a career area of their choice. It is interesting to note that Patterson students did not unanimously choose "hands-on" experience as being most helpful to them in making a career choice. Instead, "field trips" were rated as being most helpful by the highest percentage of ninth grade Patterson students, while "hands-on" experience was the second most popular choice. Patterson tenth grade students chose "hands-on" experience over "field trips" by a very narrow margin. These findings suggest that "field trips" may be a viable alternative to "hands-on" experiences when the desired "hands-on" experiences are not feasible. No Woodward or Waite student had the opportunity for the vocational training or the "hands-on" experience. In addition, Patterson students chose to attend Patterson because of their interest in the vocational courses available there. One could logically expect, therefore, that the Patterson students would feel better informed than Woodward or Waite students after a year of studying about careers that were of interest to them.

(2) Woodward and Waite students tended to be more oriented toward taking the general curriculum in grades 11 and 12, while Patterson students tended more toward taking the vocational program in grades 11 and 12.

Again, since Patterson students had already committed themselves to vocational education and had been admitted to a vocational high school, this result is not surprising. It was surprising, however, that 25 percent of the Patterson students said they planned to take a college preparatory course in grades 11 and 12. Students at Woodward and Waite were possibly responding to the Career Plans Survey in the direction of the curriculum that was available to them in their present school. Therefore, the general curriculum was probably selected because it offered the most flexibility to the students in the general high school.

(3) There was no significant change from fall to spring within or between groups relating to post-high school educational and vocational plans. College was the most popular post-high school choice for all groups in the fall and the spring. This finding was particularly surprising when one considers that a much smaller percentage of students from the three schools declared that a college degree was necessary to get along well in the world. From the findings, it appears that the Career Exploration Program had no observable effect on the post-high school educational and vocational plans of the students.

(4) Patterson students were more positive in their attitude toward school and more definite in their plans to graduate from high school than were students from Woodward and Waite. All groups, however, tended to have a less positive attitude toward school in the spring when compared to the fall. These findings suggest that students from Patterson were more satisfied with the education they were receiving and, perhaps, could see how it would be of benefit following graduation. The investigators question, however, whether the difference was due solely to the Career Exploration Program at Patterson, or whether it was also influenced by the fact that the Patterson students had chosen to attend Patterson and were receiving vocational training as a regular part of the curriculum.

(5) Patterson students had given the matter of occupational choice more thought and felt their minds were made up as to career choice more frequently than the students from Woodward or Waite. This finding supports the finding obtained on the OVIS. Once again, any change in the Patterson tenth grade students might be more accurately attributed to vocational skill training since "exploration" was limited to <u>one</u> area.

(6) In specific instances on the Career Plans Survey, Woodward students demonstrated changes significantly greater than the comparable control school group. However, there was no definitive pattern of differences in any area. Thus, one must conclude that the Woodward program lacked impact beyond that of traditional "Career Day" or "orientation" type programs. It is also possible, however, that specific program activities did have significant positive impact upon specific individuals. Such effects may have gone undetected in an evaluation such as this.

<u>Self Concept</u>

(1) There were only two significant differences on any of the nine scales of the Tennessee Self-Concept Scale examined, one in favor of a tenth grade experimental school and one in favor of the tenth grade

control school. It is obvious that the Career Exploration Program made no significant impact upon the "global self-concept" of the participants. If the Career Exploration Program or the type of school were to have a significant impact upon the majority of students in a particular school, it would have been most logical to have detected such a change at the ninth grade level since students at all three schools would be experiencing their first year in that school, and in the experimental schools, their introduction to the Career Exploration Program. There were no significant changes in any of the areas of self-concept as measured on the Tennessee for ninth grade students, thus one must conclude that neither the Career Exploration Program nor type of high school attended effected students' "global self-concept".

(2) When students were quizzed about their self-concept as it specifically related to the world of work, there were significant differences between groups. Patterson students developed a more positive attitude toward their abilities and chances for getting ahead in the occupation of their choice than did students at Waite and Woodward. Since Patterson students had adequate opportunities to test their skills with those demanded of the job, or at least job training, they were able to develop self-confidence that they would be able to do well on the job. Since Woodward students did not have opportunities for "hands-on" experiences to actually compare their abilities with training and job demands, there was little opportunity for these students to develop confidence in their abilities and chances for getting ahead in the job of their choice.

These findings that Patterson students' concept of "self-as-a-worker" improved as a result of the Career Exploration Program definitely lends credence to the value of the concept of giving students "reality testing" experiences. Unfortunately, it is much more difficult to provide such experiences in a general high school where the breadth of career areas in which such experiences are desired is so much greater than in a vocational high school. The implementation of such a program which can meet the great variety of needs of the student body in a general high school remains as one of the major unmet challenges of the Career Exploration Concept.

Parent Survey

(1) Few parents responding believed that they had "a lot" of information about the Career Exploration Program. In spite of not knowing much about the Career Exploration Program specifically, an overwhelming majority of parents responding to the survey in both schools believed that studying about jobs was a good or excellent experience for their child.

(2) In general, Patterson parents who responded were more favorable toward the Career Exploration Program and the effect it had on their children than Woodward parents. The two schools apparently made little attempt to inform parents about the program. It is not surprising, therefore, that the parents stated that they knew little about the programs. In addition, since the Patterson Career Exploration Program was almost identical to the unnamed program in effect the previous year at the school, students had little reason to identify it as a new program and discuss it with parents.

One could expect the Patterson parents to be more favorable toward the program since they usually had to give their expressed approval for their children to attend Patterson. An awareness on the part of the parent of the need of vocational education for their child might presuppose an awareness of the need for career education as well.

Recommendations and Suggestions

Program

Woodward - (1) Modify the program unless methods are found to give students "in-depth" study of a few career areas. While there were some changes in Woodward students attributable to the Career Exploration Program, they were little more than could be expected from a traditional "Career Day" type program.

(2) Consider developing in-school laboratories to simulate and demonstrate difference career areas and/or specific jobs or job training.

(3) Consider using after school, Saturday, and summers to provide desired experiences.

(4) Distribute the study of careers over the entire year instead of concentrating the experience into one-week blocks of time.

(5) Help students see how information learned about a particular career relates to them.

(6) Teach students ways in which they can learn about careers on their own.

(7) Make an effort to inform parents about the program and the objectives of the program.

Patterson -(1) Definitely continue the program.

(2) Consider continuing the exploratory nature of the program into the tenth grade for at least one year on an experimental basis.

(3) Make an effort to inform parents of the Career Exploration Program.

Evaluation

(1) Evaluate a Career Exploration Program in a general high school which more closely follows Career Exploration Program guidelines.

(2) There is no need for further evaluation of the Patterson program unless a variety of exploratory experiences are extended into the tenth grade.

(3) Provide in the evaluation for on-site observations and participant interviews by the evaluators.

(4) Reduce the amount of testing for evaluation.

(5) Use short-term change as well as long-term gains to determine success of the program.

(6) Identify students with particular weaknesses such as self-concept, then evaluate the program's success in helping just those students in their area of weakness.

(7) Develop behavioral objectives for a Career Exploration Program prior to starting the program.

(8) Consider studying fewer students in greater depth so that specific activities can be related to specific results.

(9) Consider involving the evaluators in the program planning so that evaluation can be more closely aligned with program activities, etc.

(10) Have a person on-site keep an accurate diary of effects of program on particular individuals and of problems and successes in program implementation.

(11) Ask students to rate the program.

APPENDIX

APPENDIX A

A COMPARISON OF THE PERCENTAGE OF STUDENTS WHOSE SCALE CLARITY SCORES WENT UP, STAYED THE SAME, OR WENT DOWN IN EACH GROUP FROM FALL TO SPRING

APPENDIX A

A COMPARISON OF THE PERCENTAGE OF STUDENTS WHOSE SCALE CLARITY SCORES WENT UP, STAYED THE SAME, OR WENT DOWN IN EACH GROUP FROM FALL TO SPRING

Scale Clarity Score for Each Scale
Patt 9 vs. Wt 9

School	Scale	Percentages Up	Same	Down	Chi Square
Patt 9	1. Manual Work	.085	.843	.071	13.48**
Wt 9		.155	.716	.128	
Patt 9	2. Machine Work	.105	.804	.085	8.24*
Wt 9		.101	.716	.160	
Patt 9	3. Personal Service	.144	.719	.133	15.47**
Wt 9		.192	.566	.240	
Patt 9	4. Care People-Anim.	.225	.632	.140	23.18**
Wt 9		.123	.582	.288	
Patt 9	6. Inspect-Testing	.144	.779	.071	9.12*
Wt 9		.133	.721	.149	
Patt 9	8. Customer Service	.218	.622	.158	17.55**
Wt 9		.240	.470	.294	
Patt 9	9. Nursing	.128	.740	.131	11.80**
Wt 9		.160	.615	.229	
Patt 9	11. Training	.319	.466	.209	11.89**
Wt 9		.219	.454	.326	
Patt 9	12. Literary	.206	.650	.140	9.25*
Wt 9		.181	.577	.240	
Patt 9	14. Appraisal	.174	.719	.105	7.82*
Wt 9		.203	.615	.176	
Patt 9	17. Promotion-Comm.	.209	.609	.177	7.35*
Wt 9		.219	.513	.267	
Patt 9	19. Artistic	.239	.574	.179	12.80**
Wt 9		.294	.422	.272	
Patt 9	21. Music	.170	.645	.181	7.56*
Wt 9		.240	.529	.224	

Note: Only those comparisons are listed where there was a significant difference at the .05 level or better.
* = significant at .05 level.
** = significant at .01 level.

APPENDIX A

Scale Clarity Score for Each Scale
Patt 9 vs. Wt 9
(continued)

School	Scale	Percentages Up	Same	Down	Chi Square
Patt 9	23. Teach-Coun.-Soc. W.	.250	.572	.177	6.14*
Wt 9		.235	.497	.262	
Patt 9	24. Medical	.135	.731	.133	6.31*
Wt 9		.144	.641	.208	

Scale Clarity
Patt 10 vs. Wt 10

Patt 10	1. Manual Work	.086	.855	.058	7.92*
Wt 10		.111	.779	.108	
Patt 10	2. Machine Work	.099	.834	.058	6.46*
Wt 10		.077	.816	.108	
Patt 10	3. Personal Service	.151	.752	.092	21.46**
Wt 10		.203	.606	.193	
Patt 10	4. Care People-Anim.	.201	.621	.174	9.10*
Wt 10		.179	.552	.267	
Patt 10	5. Clerical Work	.188	.673	.136	7.44*
Wt 10		.210	.586	.203	
Patt 10	6. Inspect-Testing	.072	.868	.056	36.99**
Wt 10		.186	.691	.128	
Patt 10	8. Customer Service	.174	.689	.133	18.53**
Wt 10		.169	.572	.267	
Patt 10	9. Nursing	.158	.723	.113	12.45**
Wt 10		.193	.616	.196	
Patt 10	15. Agriculture	.142	.762	.086	16.45**
Wt 10		.186	.644	.172	
Patt 10	24. Medical	.136	.750	.111	8.32*
Wt 10		.186	.654	.159	

* = significant at .05 level.
** = significant at .01 level.

APPENDIX A
(continued)

Scale Clarity
Wood 9 vs. Wt 9

School	Scale	Percentages Up	Same	Down	Chi Square
Wood 9	4. Care People-Anim.	.237	.540	.224	10.78**
Wt 9		.123	.582	.288	
Wood 9	15. Agriculture	.131	.656	.214	7.19*
Wt 9		.085	.764	.149	
Wood 9	24. Medical	.237	.594	.167	6.92*
Wt 9		.144	.641	.208	

Scale Clarity
Wood 10 vs. Wt 10

Wood 10	2. Machine Work	.118	.732	.148	5.98*
Wt 10		.077	.816	.108	
Wood 10	15. Agriculture	.130	.735	.139	6.18*
Wt 10		.186	.644	.172	

Scale Clarity
Patt 9 vs. Wood 9

Patt 9	1. Manual Work	.085	.843	.071	26.75**
Wood 9		.175	.692	.131	
Patt 9	3. Personal Service	.144	.719	.133	12.97**
Wood 9		.178	.609	.214	
Patt 9	4. Care People-Anim.	.225	.632	.140	11.04**
Wood 9		.237	.540	.224	
Patt 9	5. Clerical Work	.190	.641	.165	6.73*
Wood 9		.240	.555	.206	
Patt 9	6. Inspect-Testing	.144	.779	.071	11.51**
Wood 9		.144	.715	.144	
Patt 9	8. Customer Service	.218	.622	.158	12.94**
Wood 9		.191	.550	.260	
Patt 9	9. Nursing	.128	.740	.131	14.84**
Wood 9		.160	.622	.219	

* = significant at .05 level.
** = significant at .01 level.

APPENDIX A

Scale Clarity
Patt 9 vs. Wood 9
(continued)

School	Scale	Percentages Up	Same	Down	Chi Square
Patt 9	10. Skilled Per. Serv.	.218	.634	.147	8.84*
Wood 9		.250	.540	.211	
Patt 9	11. Training	.319	.466	.209	14.76**
Wood 9		.206	.511	.279	
Patt 9	12. Literary	.206	.650	.140	16.49**
Wood 9		.253	.519	.227	
Patt 9	14. Appraisal	.174	.719	.105	10.39**
Wood 9		.204	.625	.173	
Patt 9	15. Agriculture	.110	.774	.114	17.31**
Wood 9		.131	.656	.214	
Patt 9	17. Promotion-Comm.	.209	.609	.177	6.81*
Wood 9		.242	.527	.235	
Patt 9	18. Management	.195	.657	.147	7.03*
Wood 9		.237	.563	.191	
Patt 9	23. Teach-Coun.-Soc. W.	.250	.572	.177	7.25*
Wood 9		.232	.511	.253	
Patt 9	24. Medical	.135	.731	.133	19.00**
Wood 9		.237	.594	.167	

Scale Clarity
Patt 10 vs. Wood 10

Patt 10	1. Manual Work	.086	.855	.058	17.13**
Wood 10		.154	.735	.109	
Patt 10	2. Machine Work	.099	.834	.058	18.73**
Wood 10		.118	.732	.148	
Patt 10	3. Personal Service	.151	.752	.092	16.88**
Wood 10		.210	.626	.169	
Patt 10	6. Inspect-Testing	.072	.868	.056	39.03**
Wood 10		.148	.691	.163	

* = significant at .05 level.
** = significant at .01 level.

APPENDIX A

Scale Clarity
Patt 10 vs. Wood 10
(continued)

School	Scale	Percentages Up	Same	Down	Chi Square
Patt 10	7. Crafts	.154	.741	.102	6.16*
Wood 10		.175	.667	.154	
Patt 10	8. Customer Service	.174	.689	.133	7.21*
Wood 10		.195	.611	.198	
Patt 10	9. Nursing	.158	.725	.113	17.99**
Wood 10		.180	.605	.219	
Patt 10	24. Medical	.136	.750	.111	21.46**
Wood 10		.172	.608	.219	

Scale Clarity
Patt 9 vs. Patt 10

Patt 9	6. Inspect-Testing	.144	.779	.071	13.38**
Patt 10		.072	.868	.056	
Patt 9	18. Management	.195	.657	.147	6.50*
Patt 10		.235	.511	.188	

Scale Clarity
Wood 9 vs. Wood 10

Wood 9	13. Numerical	.240	.594	.170	7.31*
Wood 10		.169	.685	.148	
Wood 9	15. Agriculture	.131	.656	.214	7.29*
Wood 10		.130	.735	.139	
Wood 9	24. Medical	.237	.594	.167	6.30*
Wood 10		.172	.608	.219	

* = significant at .05 level
** = significant at .01 level

APPENDIX B

A COMPARISON OF THE PERCENTAGE OF STUDENTS IN EACH LONGITUDINAL GROUP WHO HAD SCALE CLARITY SCORES OF H, F, OR I IN THE FALL VERSUS SPRING

APPENDIX B

A COMPARISON OF THE PERCENTAGE OF STUDENTS IN EACH LONGITUDINAL GROUP WHO HAD SCALE CLARITY SCORES OF H, F, OR I IN THE FALL VERSUS SPRING

Scale Clarity Pre-vs. Post-Test
Wood 9 Fall vs. Spring

	Scale	Percentages H	F	I	Chi Square
Fall	7. Crafts	.100	.211	.687	6.47*
Spring		.069	.250	.679	
Fall	9. Nursing	.092	.237	.670	8.48*
Spring		.092	.298	.608	
Fall	15. Agriculture	.077	.182	.739	11.58**
Spring		.092	.242	.664	
Fall	16. Applied Tech.	.108	.222	.669	6.63*
Spring		.072	.206	.720	
Fall	24. Medical	.100	.258	.640	7.02*
Spring		.082	.211	.705	

Scale Clarity Pre vs. Post-Test
Wood 10 Fall vs. Spring

Fall	4. Care People - Anim.	.178	.299	.522	6.39*
Spring		.154	.361	.483	
Fall	6. Inspect-Testing	.047	.239	.713	14.20**
Spring		.085	.189	.724	
Fall	10. Skilled Per. Serv.	.195	.352	.452	10.80**
Spring		.147	.313	.538	
Fall	12. Literary	.130	.370	.498	12.23**
Spring		.133	.281	.584	

* = significant at .05 level.
** = significant at .01 level.

APPENDIX B
(continued)

Scale Clarity Pre-vs. Post-Test
Wt 9 Fall vs. Spring

	Scale		Percentages H	F	I	Chi Square
Fall	4.	Care People-Anim.	.172	.252	.575	17.26**
Spring			.231	.344	.424	
Fall	7.	Crafts	.058	.213	.727	8.62*
Spring			.106	.176	.716	
Fall	9.	Nursing	.074	.228	.696	6.95*
Spring			.074	.308	.617	
Fall	15.	Agriculture	.042	.144	.812	8.57*
Spring			.085	.149	.764	
Fall	20.	Sales Represent.	.037	.260	.702	6.86*
Spring			.069	.212	.718	
Fall	24.	Medical	.043	.258	.698	13.06**
Spring			.096	.241	.661	

Scale Clarity Pre-vs. Post-Test
Wt 10 Fall vs. Spring

Fall	4.	Care People-Anim.	.128	.352	.518	20.46**
Spring			.216	.311	.471	
Fall	5.	Clerical Work	.081	.257	.661	6.52*
Spring			.050	.308	.640	
Fall	8.	Customer Service	.064	.318	.616	7.75*
Spring			.094	.355	.549	
Fall	9.	Nursing	.077	.323	.599	7.63*
Spring			.111	.265	.622	
Fall	11.	Training	.254	.430	.315	12.55**
Spring			.166	.464	.369	
Fall	15.	Agriculture	.047	.263	.689	11.51**
Spring			.077	.195	.726	
Fall	17.	Promotion-Comm.	.172	.368	.459	8.76*
Spring			.155	.300	.543	

* = significant at .05 level.
** = significant at .01 level.

APPENDIX B
(continued)

Scale Clarity Pre-vs. Post-Test
Patt 9 Fall vs. Spring

	Scale	Percentage H	F	I	Chi Square
Fall	4. Care People-Anim.	.119	.283	.596	11.84**
Spring		.122	.246	.672	
Fall	6. Inspect-Testing	.025	.180	.794	16.10**
Spring		.025	.106	.868	
Fall	7. Crafts	.048	.237	.714	7.06*
Spring		.039	.188	.771	
Fall	10. Skilled Per. Serv.	.108	.312	.579	6.53*
Spring		.087	.273	.639	
Fall	11. Training	.154	.434	.411	21.99**
Spring		.126	.350	.521	
Fall	14. Appraisal	.057	.227	.714	7.01*
Spring		.034	.200	.765	
Fall	23. Tech-Coun.-Soc. W.	.094	.349	.556	7.42*
Spring		.085	.294	.620	

* = significant at .05 level.
** = significant at .01 level.

APPENDIX B
(continued)

Scale Clarity Pre-vs. Post-Test
Patt 10 Fall vs. Spring

	Scale	Percentages H	F	I	Chi Square
Fall	3. Personal Service	.050	.200	.750	7.26*
Spring		.034	.161	.804	
Fall	9. Nursing	.038	.230	.731	6.89*
Spring		.038	.177	.783	
Fall	12. Literary	.095	.344	.559	6.51*
Spring		.098	.287	.614	
Fall	13. Numerical	.066	.236	.697	6.35*
Spring		.050	.198	.751	
Fall	14. Appraisal	.066	.291	.642	12.92*
Spring		.034	.250	.715	
Fall	15. Agriculture	.038	.176	.784	8.31*
Spring		.022	.137	.839	
Fall	17. Promotion-Comm.	.098	.394	.506	14.07**
Spring		.105	.308	.586	
Fall	18. Management-Supervision	.059	.355	.585	8.63*
Spring		.075	.291	.633	
Fall	19. Artistic	.131	.356	.511	14.38*
Spring		.125	.277	.597	
Fall	20. Sales Represent.	.065	.229	.704	11.28*
Spring		.027	.254	.718	
Fall	24. Medical	.056	.172	.770	6.85*
Spring		.029	.193	.777	

* = significant at .05 level.
** = significant at .01 level.

APPENDIX C

A COMPARISON OF CHANGE IN FIRST CHOICE EXPRESSED INTEREST ON THE OHIO VOCATIONAL INTEREST SURVEY

APPENDIX C

A COMPARISON OF CHANGE IN FIRST CHOICE EXPRESSED INTEREST ON THE OHIO VOCATIONAL INTEREST SURVEY

School	Grade	Percentages		Chi Square
		Same	Changed	
Patt	9	.418	.581	.04
Wt	9	.426	.573	
Patt	10	.558	.441	5.34*
Wt	10	.471	.528	
Wood	9	.438	.561	.08
Wt	9	.426	.573	
Wood	10	.498	.501	.45
Wt	10	.471	.528	
Patt	9	.418	.581	.35
Wood	9	.438	.561	
Patt	10	.558	.441	2.67
Wood	10	.498	.501	
Patt	9	.418	.581	16.97**
Patt	10	.558	.441	
Wood	9	.438	.561	2.49
Wood	10	.498	.501	

* = significant at .05 level.
** = significant at .01 level.

APPENDIX D

A COMPARISON OF CHANGE IN FIRST CHOICE INVENTORIED INTEREST ON THE OHIO VOCATIONAL INTEREST SURVEY

APPENDIX D

A COMPARISON OF CHANGE IN FIRST CHOICE INVENTORIED INTEREST ON THE OHIO VOCATIONAL INTEREST SURVEY

School	Grade	Percentages		Chi Square
		Same	Changed	
Patt	9	.325	.674	.20
Wt	9	.307	.692	
Patt	10	.437	.561	8.00**
Wt	10	.335	.664	
Wood	9	.302	.697	.01
Wt	9	.307	.692	
Wood	10	.353	.646	.24
Wt	10	.335	.664	
Patt	9	.325	.674	.50
Wood	9	.302	.697	
Patt	10	.437	.561	5.68*
Wood	10	.353	.646	
Patt	9	.325	.674	11.72**
Patt	10	.437	.561	
Wood	9	.302	.697	2.16
Wood	10	.353	.646	

* = significant at .05 level.
** = significant at .01 level.

APPENDIX E

INVENTORIED RANK OF FIRST CHOICE
EXPRESSED INTEREST - ANALYSIS OF COVARIANCE

APPENDIX E

INVENTORIED RANK OF FIRST CHOICE
EXPRESSED INTEREST - ANALYSIS OF COVARIANCE

School	MEANS Fall	Spring	Adjusted	F
Patt 9	5.9393	6.5561	6.6199	0.567
vs.				
Wt 9	6.6526	7.1684	7.0246	
Patt 10	5.9317	5.5308	5.6323	3.441
vs.				
Wt 10	6.7893	6.5652	6.4161	
Wood 9	6.9043	7.5186	7.4904	0.210
vs.				
Waite 9	6.6526	7.1684	7.2242	
Wood 10	6.3262	6.7877	6.8572	0.572
vs.				
Wt 10	6.7893	6.5652	6.4897	
Patt 9	5.9393	6.5561	6.7207	1.911
vs.				
Wood 9	6.9043	7.5186	7.3313	
Patt 10	5.9317	5.5308	5.5880	7.447**
vs.				
Wood 10	6.3262	6.7877	6.7103	
Patt 9	5.9393	6.5561	6.5548	7.128**
vs.				
Patt 10	5.9317	5.5308	5.5320	
Wood 9	6.9043	7.5186	7.4157	1.141
vs.				
Wood 10	6.3262	6.7877	6.9067	

** = Significant at .01 level.

APPENDIX F

A COMPARISON OF THE INVENTORIED RANK OF THE NUMBER ONE EXPRESSED CHOICE ON THE OHIO VOCATIONAL INTEREST SURVEY TEST

APPENDIX F

A COMPARISON OF THE INVENTORIED RANK OF THE NUMBER ONE EXPRESSED CHOICE ON THE OHIO VOCATIONAL INTEREST SURVEY TEST

School	Grade	N	Fall Mean	Fall S.D.	Spring Mean	Spring S.D.	t
Wood	9	376	6.87	6.44	7.51	6.97	-1.66
Wood	10	325	6.27	6.28	6.77	6.45	-1.23
Wt	9	190	6.61	6.26	7.20	6.65	-1.00
Wt	10	299	6.78	6.46	6.57	6.27	.46
Patt	9	428	5.95	5.90	6.55	6.29	-1.72
Patt	10	439	5.86	6.25	5.51	5.64	1.09

APPENDIX G

THE OVIS INTEREST SCALES

APPENDIX G

THE OVIS INTEREST SCALES

The 24 Interest Scales are briefly described below. The three-digit numbers following the scale titles represent the levels of involvement with Data, People, and Things (in that sequence) of typical jobs belonging to each scale. Low involvement is represented by 0, average by 1, and high by 2. Further explanation and expanded scale descriptions are reported in the OVIS Interpretive Manual.

1. Manual Work (001) - Unskilled use of tools and routine work done by hand. Includes construction worker, farm hand, firefighter, dishwasher, janitor, and furniture mover.

2. Machine Work (002) - Operating and adjusting machines used in processing or manufacturing. Also includes driving tractor-trailer trucks and operating heavy equipment.

3. Personal Services (010) - Providing routine services for people as a waiter, waitress, household worker, doorman, messenger, gas station attendant, train conductor, fashion model, steward, or stewardess.

4. Caring for People or Animals (011) - Routine work related to the day-to-day needs of people or animals. Includes working in a nursing home, nursery, hospital, pet store, zoo, or animal laboratory.

5. Clerical Work (100) - Typing, recording, filing, and other clerical or stenographic work.

6. Inspecting and Testing (101) - Sorting, measuring, or checking products and materials; inspecting equipment or public facilities.

7. Crafts and Precise Operations (102) - Skilled use of tools or other equipment as in the building trades, machine installation and repair, or the operation of trains, planes, and ships. Includes carpenter, welder, tool and die maker, watch repairman, television technician, mechanic, and appliance repairman.

8. Customer Services (110) - Waiting on customers in stores, banks, motels, offices, or at home; helping telephone customers with business orders, reservations, and other information. Also includes tour guides, bus drivers, and ticket and toll collectors.

9. Nursing and Related Technical Services (111) - Providing services as a nurse, physical therapist, X-ray or medical laboratory technician, or dental hygienist.

10. Skilled Personal Services (112) - Providing skilled services to people such as tailoring, cooking, barbering, or hairdressing.

APPENDIX C
(continued)

THE OVIS INTEREST SCALES

11. Training (120) - Instructing people in employment or leisure-time activities such as games, crafts, flying, driving, and machine operation. Also includes training dogs, horses, and other animals.

12. Literary (200) - Writing novels, poetry, reviews, speeches, or technical reports; editing; translating.

13. Numerical (200) - Using mathematics as in accounting, finance, data processing, or statistics.

14. Appraisal (201) - Determining the efficiency of industrial plants and businesses, evaluating real estate, surveying land, and chemical or other laboratory testing.

15. Agriculture (202) - Farming, forestry, landscaping, and plant or animal research.

16. Applied Technology (202) - Applying engineering principles and scientific knowledge. Includes physics, chemistry, geology, architecture, and mechanical or other types of engineering.

17. Promotion and Communication (210) - Advertising, publicity, radio announcing, journalism, news information service, interviewing, recruiting; also providing legal services as a judge or lawyer.

18. Management and Supervision (210) - Administrative or supervisory work, such as shop foreman, supervisor, school administrator, police or fire chief, head librarian, executive, hotel manager, and union official. Includes owning or managing a store or business.

19. Artistic (212) - Interior decoration, display work, photography, commercial and creative art work, and artistic restoration.

20. Sales Representative (212) - Demonstrating and providing technical explanations of products or services to customers; selling products or services and providing related technical assistance. Includes department store buyer, factory sales representative, wholesaler, and insurance or real estate salesman.

21. Music (220) - Composing, arranging, conducting, singing, or playing instruments.

22. Entertaining and Performing Arts (220) - Entertaining others by participating in dramatics, dancing, comedy routines, or acrobatics.

APPENDIX G
(continued)

THE OVIS INTEREST SCALES

23. Teaching, Counseling, and Social Work (220) - Providing instruction or other services in a school, college, church, clinic, or welfare agency. Includes instruction in art, music, ballet, or athletics.

24. Medical (222) - Providing dental, medical, surgical, or related services for the treatment of people or animals.

OVIS

OHIO VOCATIONAL INTEREST SURVEY

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APPENDIX H

CAREER PLANS SURVEY AND ANSWER SHEET

CAREER PLANS SURVEY

Ohio Division of Vocational Education 10-70

By John R. Cochran, Ph. D.
David M. Weis, Ph. D.

Directions: Following are some questions that ask you about your plans, feelings, and attitudes. Your school hopes to use your answers to help improve the school program, therefore, it is important that you answer all questions as honestly as possible. Each question is different so be sure to read each one carefully. If you are not sure of an answer, choose the one that is closest to what you think right now. If you do not understand a question, you may ask the person giving the test to explain it to you.

Do not make any marks on the test booklet. Make all marks on the separate answer sheet provided. You are to darken the number of the answer that you choose. Make broad dark marks that completely fill the brackets below the number. Do not mark beyond the lines. Completely erase any marks you wish to remove. Use only a number 2 pencil.

Now answer the questions.

FOR QUESTIONS 1, 2, AND 3 MARK ALL THAT APPLY

1. Indicate all the ways in which you have learned at school about occupations before this (1970-71) school year. Notice that you are to indicate only the ways before this year. (Mark all that apply.)

   0. Field Trips to observe people at work
   1. Information from a special class on careers
   2. Talks at school by people who know about or work at the occupation
   3. Trying some of the training required for the occupation
   4. Getting information about occupations in your regular academic classes
   5. Reading about the occupations from information in the school library or guidance office
   6. Talking to a guidance counselor
   7. Taking special course(s) dealing with occupations
   8. Other
   9. None of the above

--Now Go To The Next Page--

(University of Akron)

2. Indicate all the ways which you have learned at school about occupations this (1970-71) school year. Notice, answer for this school year only. (Mark all that apply.)

0. Field Trips to observe people at work
1. Information from a special class on careers
2. Talks at schools by people who know about or work at the occupation
3. Trying some of the training required for the occupation
4. Getting information about occupations in your regular academic classes
5. Reading about the occupations from information in the school library or guidance office
6. Conversation with a guidance counselor
7. Taking a special course dealing with occupations
8. Other
9. None of the above

3. With which of the following people have you discussed the occupations that are of most interest to you. (Mark all that apply.)

0. Your parents
1. Your relatives
2. Your friends
3. Your teachers
4. Your principal
5. Your guidance counselor
6. Someone other than the above who works at that occupation
7. No one
8. Other

FOR THE REST OF THE QUESTIONS, MARK ONLY ONE ANSWER FOR EACH QUESTION. EACH QUESTION IS DIFFERENT, SO BE SURE TO READ EACH ONE CAREFULLY. BE SURE YOU ANSWER EVERY QUESTION.

4. In regard to your choice of occupation, have you: (Mark only one.)

0. Given the matter a great deal of thought
1. Given the matter some thought
2. Given the matter little thought
3. Given the matter no thought

--Now Go To The Next Page--

5. When you say that a job is a "good job", what do you think is the ONE MAIN thing that makes it a "good job"? (Mark only one.)

0. The job gives a chance to "be your own boss"
1. The job pays well
2. The job is pleasant, safe, and easy
3. The job helps other people
4. The job has a good future
5. The preparation for the job requires much education, hard work and money
6. The job provides steady work
7. Other people think the job is a "good job"
8. The job requires high moral standards, honesty, and responsibility
9. The job requires intelligence and ability

6. In regard to your choice of occupation, are you: (Mark only one.)

0. Sure that your mind is made up
1. Not sure, but think your mind is made up
2. Not sure that your mind is made up
3. Sure that your mind is not made up

7. Do you plan to graduate from high school? (Mark only one.)

0. Definitely plan to graduate
1. Probably will graduate
2. Undecided
3. Probably will not graduate
4. Definitely do not plan to graduate

8. As compared with others now working at the occupation you are considering, do you think your ability is: (Mark only one.)

0. Very much above average
1. A little above average
2. Average
3. A little below average
4. Very much below average

9. Which of the following phrases best describes your attitude toward school? (Mark only one.)

0. I like school a lot
1. I like school pretty well
2. I don't like or dislike school
3. I dislike school a little
4. I dislike school a lot

--Now Go To The Next Page --

10. From the time you were in the first grade until now, which one of the following sources at school has been the most helpful to you in learning about the occupations you are considering? (Mark only one.)

0. Field Trips to observe people at work
1. Information from a special class on careers
2. Talks at school by people who know about or work at the occupation
3. Trying some of the training required for the occupation
4. Information gained in your regular academic classes
5. Reading about the occupations from information in the school library or guidance office
6. Conversations with a guidance counselor
7. Taking special course(s) dealing with occupations
8. Other
9. None of the above

11. If you could take any course of study you wanted in grades 11 and 12, which would you take? (Mark only one.)

0. College Preparatory (Academic)
1. Business or Commercial
2. Vocational or Technical
3. General
4. Other
5. Undecided

12. Which of the following would your parents like for you to do after leaving high school? (Mark only one.)

0. Go to a vocational or technical school
1. Go to a business school (non-college)
2. Go to nursing school (college or non-college)
3. Go to junior or community college (2 years)
4. Go to college or university (4 years)
5. Go into military service
6. Go into an apprenticeship or other on-the-job training
7. Take a job that requires no additional training
8. Other
9. Undecided

13. Compared with your friends, do you think your chances for being successful in the occupation of your choice are: (Mark only one.)

0. Very much above average
1. A little above average
2. Average
3. A little below average
4. Very much below average

--Now Go To The Next Page--

14. About how much schooling do you think most young people need these days to get along well in the world? (Mark only one.)

0. Elementary school
1. Some high school
2. High school diploma
3. High school diploma including vocational or technical training
4. High school diploma plus business or technical school
5. Some college
6. Some college plus business, vocational, or technical school
7. College degree
8. College degree plus additional non-college training
9. College degree plus graduate school

15. As compared with others now working at the occupation you are considering, do you think your chances of getting ahead in the occupation are: (Mark only one.)

0. Very much above average
1. A little above average
2. Average
3. A little below average
4. Very much below average

16. Which of the following do you actually plan to do after leaving high school? (Mark only one.)

0. Go to vocational or technical school
1. Go to business school (non-college)
2. Go to nursing school (college or non-college)
3. Go to junior or community college (2 years)
4. Go to college or university (4 year)
5. Go into military service
6. Go into an apprenticeship or other on-the-job training
7. Take a job that requires no additional training
8. Other
9. Undecided

17. In regard to your choice of an occupation, do you feel: (Mark only one.)

0. You have enough information about the jobs that interest you to choose the occupation you would like to enter.
1. You have some information about the jobs that interest you, but not enough for you to make up your mind.
2. You don't have any information about the jobs that interest you to help you make up your mind.

--Now Go To The Next Page--

18. Of those people you have discussed occupations with, which one do you feel helped you most to learn about the occupation? (Mark only one.)

0. Your parents
1. Your relatives
2. Your friends
3. Your teachers
4. Your guidance counselor
5. Your principal
6. Someone other than the above who works at the occupation
7. No one
8. Other

19. Which course of study do you plan to take in grades 11 and 12? (Mark only one.)

0. College Preparatory (Academic)
1. Business or Commercial
2. Vocational or Technical
3. General
4. Other
5. Undecided

20. Considering your interests and abilities, which of the following do you think you should do after leaving high school? (Mark only one.)

0. Go to vocational or technical school
1. Go to business school (non-college)
2. Go to nursing school (college or non-college)
3. Go to junior or community college (2 year)
4. Go to college or university (4 years)
5. Go into military service
6. Go into an apprenticeship or other on-the-job training
7. Take a job that requires no additional training
8. Other
9. Undecided

21. Which course of study would your parents like for you to take in grades 11 and 12? (Mark only one.)

0. College Preparatory (Academic)
1. Business or Commercial
2. Vocational or Technical
3. General
4. Other
5. Undecided

--Now Go To The Next Page--

22. If you could do anything you wanted after leaving high school, which of the following would you do? (Mark only one.)

0. Go to vocational or technical school
1. Go to business school (non-college)
2. Go to nursing school (college or non-college)
3. Go to junior or community college (2 year)
4. Go to college or university (4 years)
5. Go into military service
6. Go into an apprenticeship or other on-the-job training
7. Take a job that requires no additional training
8. Other
9. Undecided

23. Considering your interests and abilities, which high school course of study do you think you should take? (Mark only one.)

0. College Preparatory (Academic)
1. Business or Commercial
2. Vocational or Technical
3. General
4. Other
5. Undecided

24. In regard to working, do you now have:

0. A regular job outside the home where you work at least once every week and get paid for it.
1. A job outside the home where you work occasionally (less than once a week) and get paid for it.
2. No job outside the home.

ONLY ANSWER QUESTION 25 IF YOU PLAN TO ENTER MILITARY SERVICE AFTER HIGH SCHOOL

25. If you plan to enter military service after high school, which of the following do you plan to do after your first military service is over? (Mark only one.)

0. Go to vocational or technical school
1. Go to business school (non-college)
2. Go to nursing school (college or non-college)
3. Go to junior or community college (2 year)
4. Go to college or university (4 years)
5. Stay in the military service
6. Go into an apprenticeship or other on-the-job training
7. Take a job that requires no additional training
8. Other
9. Undecided

CAREER PLANS SURVEY

PRINT YOUR LAST NAME, FIRST NAME, AND MIDDLE INITIAL IN THE BOXES PROVIDED. THEN LETTER BOX BELOW WHICH MATCHES EACH LETTER OF YOUR NAME.

YOUR LAST NAME | YOUR FIRST NAME | MI

SCHOOL CODE

GROUP

SEX | GRADE | AGE

NAME (LAST NAME, FIRST NAME, MIDDLE INITIAL) _____ IN _____ JCTC _____

SCHOOL _____

ADDRESS _____

1 2 3 4 5 6 7 8 9 10

11 12 13 14 15 16 17

18 19 20 21 22 23 24 25

USE PENCIL ONLY -- NOT INK OR BALLPOINT PEN

APPENDIX I

TENNESSEE SELF-CONCEPT SCALE AND ANSWER SHEET

TENNESSEE
(Department of Mental Health)

SELF CONCEPT SCALE

BY
William H. Fitts, Ph.D.

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APPENDIX J

PARENT SURVEY

DAYTON PATTERSON
PARENT SURVEY
Ohio Division of Vocational Education

David M. Weis & John R. Cochran
The University of Akron

DEAR PARENT:

THIS YEAR DAYTON PATTERSON HAS STARTED A CAREER EXPLORATION PROGRAM. THE PURPOSE OF THIS PROGRAM IS TO HELP 9TH AND 10TH GRADE STUDENTS LEARN ABOUT JOBS. STUDENTS ARE TAKING FIELD TRIPS, TALKING ABOUT JOBS IN SCHOOL AND SOMETIMES, TRYING THE SPECIFIC TRAINING REQUIRED FOR SOME JOBS. WE WOULD LIKE TO KNOW WHAT YOU THINK OF THIS PROGRAM.

WE WOULD APPRECIATE IT IF YOU WOULD TAKE A FEW MINUTES TO FILL OUT ONE OF THESE SURVEYS FOR EACH CHILD YOU HAVE IN THE 9TH OR 10TH GRADE AT DAYTON PATTERSON. DO NOT FILL OUT A SURVEY FOR ANY CHILD IN ANOTHER GRADE OR ANOTHER SCHOOL. WE WOULD LIKE YOUR HONEST OPINION. WE WILL REMOVE THE PAGE WITH YOUR NAME ON THE SURVEY BEFORE SHARING YOUR COMMENTS WITH ANYONE AT THE SCHOOL. PLEASE FILL OUT THE SURVEY, PUT IT IN THE ENVELOPE PROVIDED, PRINT YOUR CHILD'S NAME ON THE FRONT OF THE ENVELOPE, AND HAVE YOUR CHILD RETURN THE COMPLETED SURVEY TO THE TEACHER WHO GAVE IT TO HIM.

WHAT YOU THINK OF THE DAYTON PATTERSON CAREER EXPLORATION PROGRAM IS IMPORTANT TO US.

A. _____
YOUR NAME

B. _____ _____
YOUR ADDRESS PHONE NUMBER

C. _____
CHILD'S NAME (please print: last name, first name, middle initial)

FOR ITEMS D, E, AND F BELOW PUT AN "X" IN THE SPACE ON EACH LINE THAT DESCRIBES YOUR CHILD.

D. CHILD'S GRADE IN SCHOOL... (1) ____9TH (2) ____10TH (8)

E. CHILD'S SEX... (1) ____BOY (2) ____GIRL (9)

F. DID YOUR CHILD ENROLL IN DAYTON PATTERSON BEFORE NOVEMBER 1, 1970? (10)
(1) ____YES (2) ____NO

(Continue on the back of this page.)

ALL THE QUESTIONS ON THIS SURVEY DEAL WITH WHAT YOU KNOW AND THINK ABOUT THE CAREER EXPLORATION PROGRAM IN YOUR CHILD'S SCHOOL.

PLACE AN "X" IN FRONT OF ONE ANSWER THAT BEST DESCRIBES WHAT YOU THINK

1. How much do you know about the Career Exploration Program that was started this year to help your 9th and/or 10th grade child learn about jobs? (Mark only One) (11)

_____A. I know a lot about what students do in the program

_____B. I know some, but not a lot about what students do in the program

_____C. I know a little about what students do in the program

_____D. I know nothing about what students do in the program (IF YOU CHOOSE THIS ANSWER, DO NOT ANSWER QUESTION 2, GO TO QUESTION 3)

2. If you know about the Career Exploration Program, from what source did you learn most about it? (Mark only One) (12)

_____A. From your child

_____B. From the school

_____C. From people in the community

_____D. From your job

_____E. Other

3. How do you feel about having your child participate in the Career Exploration Program in his school? (Mark only One) (13)

_____A. It has been an excellent experience for my child to be in the program.

_____B. It has been a good experience for my child to be in the program.

_____C. It has been a good experience for my child to be in the program, but he would have learned as much about jobs without the program.

_____D. It has been a poor experience for my child to be in the program.

_____E. It has been a complete waste of my child's time to be in the program.

THE REMAINDER OF THE QUESTIONS DEAL WITH WHAT YOUR CHILD HAS LEARNED IN SCHOOL THIS YEAR AS A RESULT OF THE CAREER EXPLORATION PROGRAM. PLACE AN "X" ABOVE THE WORD OR WORDS THAT BEST DESCRIBE YOUR ANSWER.

EXAMPLE: MY CHILD HAS LEARNED ABOUT SPORTS IN THE CAREER EXPLORATION PROGRAM.

				X
strongly agree	agree	neither agree or disagree	disagree	strongly disagree

IN THE EXAMPLE THE PERSON HAS PUT AN "X" ABOVE "STRONGLY DISAGREE" THUS INDICATING THAT HE "STRONGLY DISAGREES" THAT HIS CHILD HAS LEARNED ABOUT SPORTS IN THE CAREER EXPLORATION PROGRAM.

---

4. This year in school my child has learned about what jobs are <u>available to him</u>. (14)

(1)	(2)	(3)	(4)	(5)
strongly agree	agree	neither agree or disagree	disagree	strongly disagree

5. This year in school my child <u>has not</u> learned what <u>training</u> is required for different jobs. (15)

(1)	(2)	(3)	(4)	(5)
strongly agree	agree	neither agree or disagree	disagree	strongly disagree

6. This year in school my child has learned what different jobs <u>pay</u>. (16)

(1)	(2)	(3)	(4)	(5)
strongly agree	agree	neither agree or disagree	disagree	strongly disagree

7. This year in school my child has learned <u>less</u> about jobs than in the past years. (17)

(1)	(2)	(3)	(4)	(5)
strongly disagree	agree	neither agree or disagree	disagree	strongly disagree

(Continue on the back of this page.)

8. My child likes school better this year because he has had an opportunity to learn about jobs. (18)

(1)	(2)	(3)	(4)	(5)
strongly agree	agree	neither agree or disagree	disagree	strongly disagree

9. My child had discussed with me less this year than in past years what he wants to do after completing his high school education. (19)

(1)	(2)	(3)	(4)	(5)
strongly agree	agree	neither agree or disagree	disagree	strongly disagree

10. Because of studying about jobs in school this year, my child has a better idea of what jobs he would like to do after completing his high school education. (20)

(1)	(2)	(3)	(4)	(5)
strongly agree	agree	neither agree or disagree	disagree	strongly disagree

11. Because of studying about jobs in school this year, my child has a better idea of what jobs he can do well. (21)

(1)	(2)	(3)	(4)	(5)
strongly agree	agree	neither agree or disagree	disagree	strongly disagree

12. COMMENTS: _____